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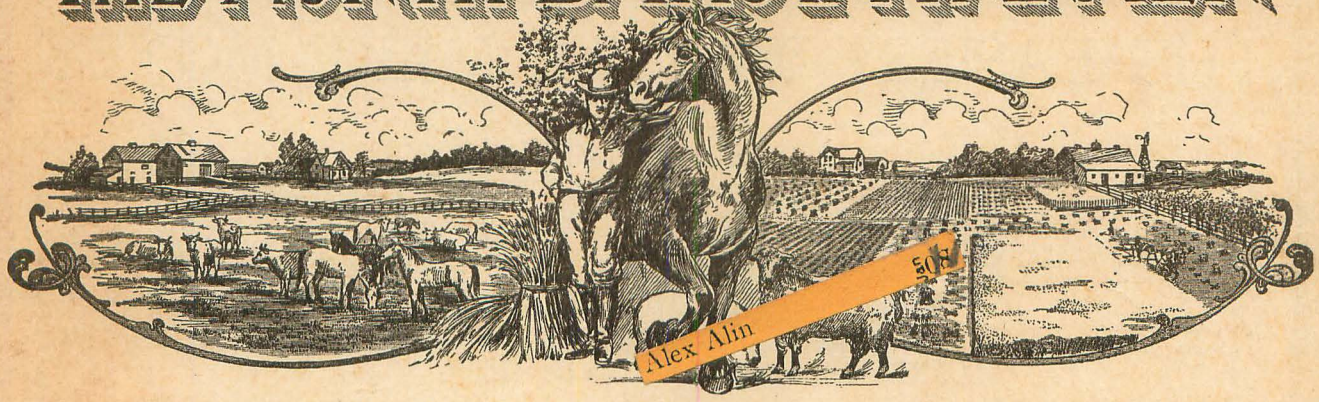

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Vol. 9, No. 6
LISBON, N. D.

DECEMBER 15, 1907

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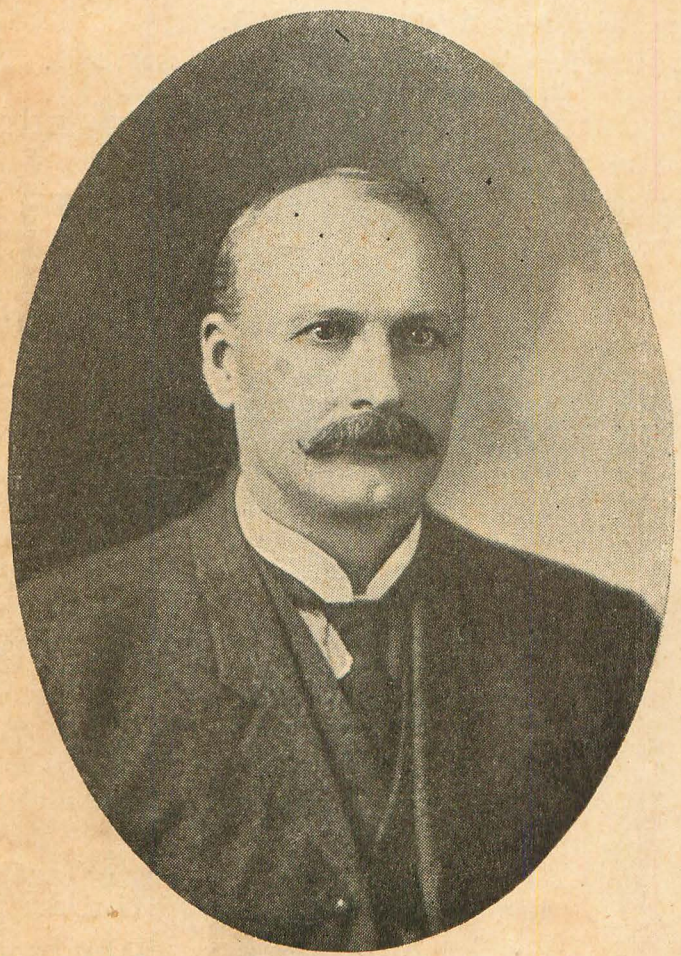

PRESIDENT J. H. WORST.

THAT EUROPEAN TRIP

My trip to Europe during the past summer was not undertaken solely for pleasure or recreation, but to learn what I could about agriculture as practiced in the older countries. In writing a series of papers during 1908 for the North Dakota Farmer, it shall be my purpose to give its readers an account of observations made and of interviews held with farmers in several European countries. This will not be done entirely with a view to preaching agricultural sermons but that the readers of the North Dakota Farmer may thus have a better understanding of conditions that prevail beyond the Atlantic. Where population is dense, as in Belgium and Holland, farms are necessarily small and the most intensive system of cultivation is practical.

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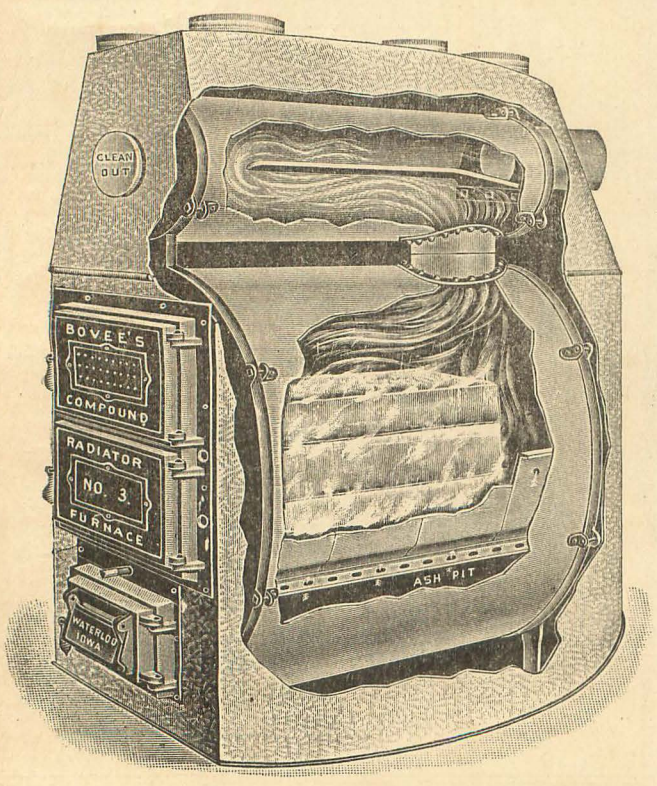

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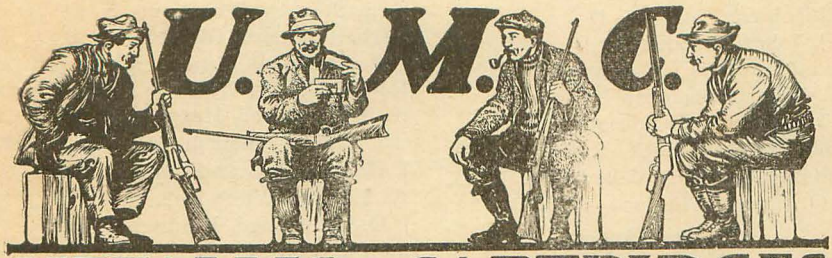

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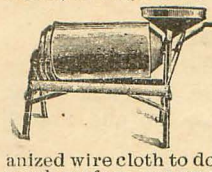

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THE NORTH DAKOTA FARMER

Vol. 9, No. 6 LISBON and FARGO, N. D., DECEMBER 15, 1907 50 Cents a Year

OF GENERAL INTEREST

THAT EUROPEAN TRIP

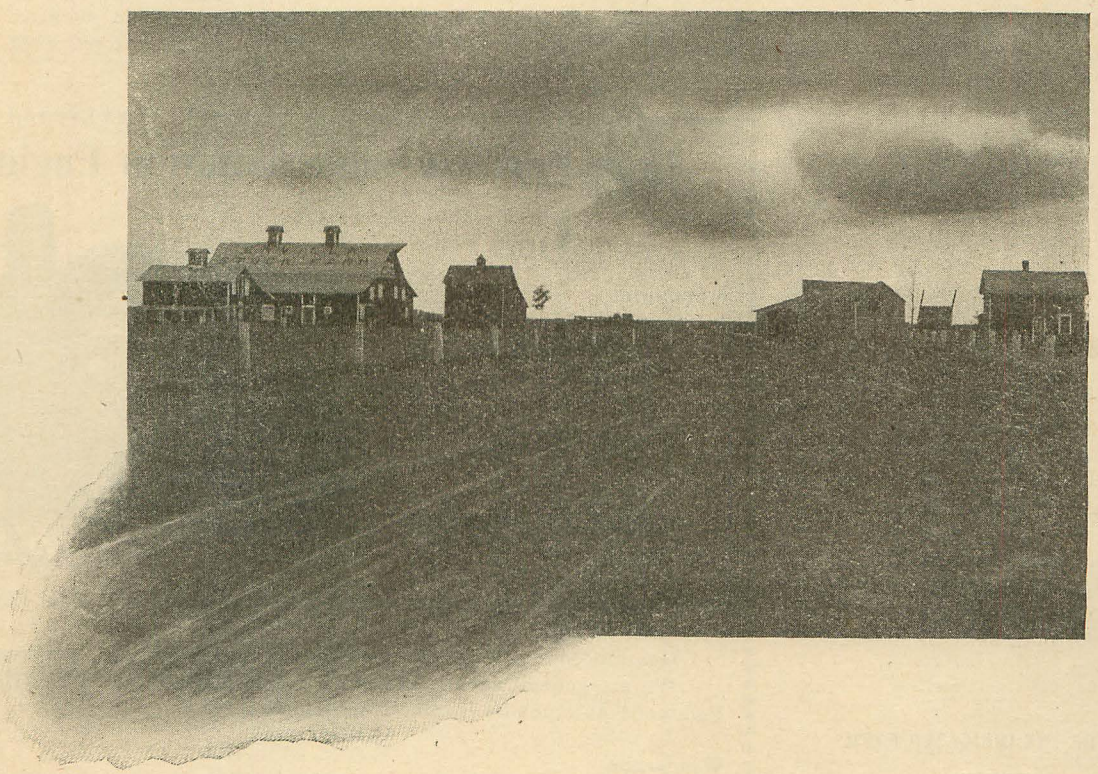
By J. H. Worst

My trip to Europe during the past summer was not undertaken solely for pleasure or recreation, but to learn what I could about agriculture as practiced in the older countries. In writing a series of papers during 1908 for the North Dakota Farmer, it shall be my purpose to give its readers an account of observations made and of interviews held with farmers in several European countries. This will not be done entirely with a view to preaching agricultural sermons but that the readers of the North Dakota Farmer may have a better understanding of conditions that prevail beyond the Atlantic. Where population is dense, as in Belgium and Holland, farms are necessarily small and the most intensive system of cultivation is practical.

The farmers of northern Europe are not so much engrossed with the idea of becoming wealthy or even well-to-do as to make a living. To accomplish this end they have been compelled to give the most careful attention to every detail of their business so that every acre of land shall produce its maximum every year. Anything short of this spells failure to make expenses. Centuries of study and observation have acquainted those now engaged in farming with a very accurate knowledge of their local soil and climatic conditions and what means must be employed to secure the best results for the season's work.

To describe the methods European farmers employ, the implements they use together with rotations of crops and fertilizing agents made use of may at least prove interesting to North Dakota farmers. Possibly some useful conclusions may be arrived at as well.

Here, perhaps more than there, the prosperity of the country depends upon agriculture. With Europeans it may be more of an individual concern—a matter of making a living for those engaged in farming, while in America agriculture is the foundation of our national and state prosperity. Certainly no one will contend that so important an element connected with the wellbeing of our country as our soil should not receive paramount attention, both from the practical and educational phases of the subject. I would not think of supplanting our system of farming with old country methods; yet



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we can well afford to dispense with some of our more wasteful and exhausting adjuncts and grafting within our system, instead, many of their rural economies.

A mere recital, therefore, of things observed while abroad will not prove a miss to the readers of the North Dakota Farmer.

The pressure of population upon the land in the densely populated countries of Europe is very great as compared with our own Northwest; yet even here the pressure must ere long become more apparent, and just in proportion as our population approximates that of Belgium or Holland must we adopt their methods. Old world conditions are crowding upon us more and more and the result will be that each acre of land must be made more productive that more people may make a living off the land. This will necessitate smaller farms, greater diversity of crops, with more attention paid to fertilizing agents and better cultivation of the soil.

It is gratifying to learn that education having a direct bearing upon agriculture has been chiefly responsible for the productivity of European farms. This type of education influences agriculture there both directly and indirectly, for those not enjoying the advantages offered by the splendid agricultural colleges with which European countries abound are aided and directed by agricultural experts appointed by the government, or supported by the agricultural societies.

I had the pleasure of visiting and interviewing several of the most prominent and extensive farmers of Holland, France and Belgium and shall, in the course of any correspondence, relate in detail exact farming operations as I observed them and as they were explained to me and let the reader draw his own conclusions. I shall not hesitate also to commend what I saw abroad or criticise what I see here, for there is plenty of opportunity for both such commendation and criticism.

SIZE OF THE IRRIGATED FARM

Amount of Land Needed in Northwest To Make it Profitable to Small Owner

Prof. F. B. Linfield, Director Montana Experiment Station

The question has been asked: What area of land under the irrigation ditches constructed by the Reclamation Service should be considered as the farm unit? This question involves yet others. What is the purpose of the Government in undertaking this reclamation work? What class of people does it aim to help? I think all will agree that the men of large means and large capacity should not have first consideration but rather the man of small means and capacity. The wage earners and laborers than the employer of labor. The aim of the Government should be to make it possible for the man of small means to build himself a home in a healthy atmosphere where the social and educational advantages are such as to develop the best type of citizenship.

Next, what area of land under irrigation will support a man and his family in comfort and also provide means for using educational opportunities for his family? The first part of this question can be answered only by asking another? What is the average yearly income of the average working man? While wages are good in Montana probably $500 to $600 per year will be an outside wage obtained by the average laborer in the country towns. From this, house rent and all living expenses have to be paid. Now what will 40 acres of irrigated land return under careful, thoro and intelligent management? To be equal to the wage proposition it should provide equal or better wages, interest on the investment and keep or maintenance of farm machinery and horses. Something on interest and wages will be returned by the home being provided on the farm, and besides much of the fruit, all the vegetables and the wheat for flour may be grown on the farm and obtained without any cash outlay. The same is true for the poultry and the eggs and for the milk, cream and butter needed. With the saving in rent and on the living grown on the farm, fully half a laboring man's expense is produced directly from the farm with but little or no cash outlay.

But what will a 40-acre tract under cultivation produce? A few illustrations will perhaps best answer the question. George Allen, living some five miles from Bozeman, last fall threshed 85 bushels of wheat per acre from a 70-acre field and sold the crop for $45 per acre; $10 per acre would pay very well for the labor and expense of growing and harvesting the crop. Thus the gross return from 40 acres would be $1,800 and the net return $1,200. One

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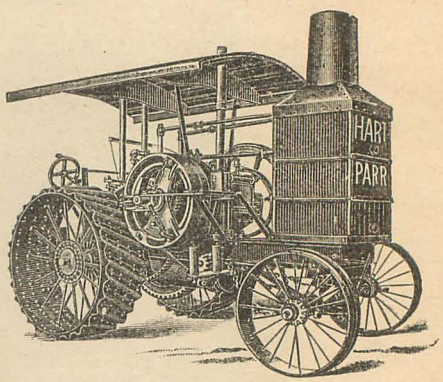

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hundred bushels of oats is a common crop for the good farmer. At 1 cent per pound, this means $35 per acre. If we again allow $10 per acre for expense, it would give $1,200 as a gross return and $800 as the net return from 40 acres of ground.

In the Yellowstone Valley five to six tons of alfalfa hay per acre is a common crop. At $4 per ton this is $20 to $24 per acre; $8 per acre will be a large price for producing and handling this crop. At six tons per acre, this would give a gross return of $550 from 40 acres of land.

If this alfalfa hay was fed to stock, particularly to dairy cows, these returns could be nearly doubled.

The writer has pastured two milch cows on one acre of ground and obtained 200 pounds of butter fat. At 20 cents per pound, this returns $40 per acre, or $1,600 from 40 acres.

The above crops can be produced for a minimum outlay of labor. A man and team could do practically all the work. In the above illustrations the returns from but one crop were considered, but a combination of many of the crops mentioned would be the ideal farm practice. If livestock were handled this would spread the work over the area and the returns on these variety crops will be in proportion to the acreage of each and would give the maximum return of from $800 to $1,700 per year from the 40 acres in addition to providing a home and many of the living expenses.

In the above estimate none of the crops expensive to raise have been considered. Potatoes, sugar-beets, garden truck and fruit of all kinds call for larger outlay of labor but they are correspondingly larger producers and give greater returns per acre.

Something in these kinds of crops should be grown. However, the extent of these crops that might be grown will be determined by the time available for properly caring for them. To yield the largest returns, the work of the farm should be so planned as to afford profitable employment the year around. The farmer on 40 acres has to be a manufacturer, a concentrator of farm products, as well as a producer of raw material. When properly managed, this will bring not alone income, but larger profits.

I have known many families in the East raised on a farm of 50 acres with comfort, with sturdy bodies and vigorous, active minds. From 20 acres of Montana's irrigated land I have seen more grain and hay produced than on many of the best of these 50 acre tracts. Forty acres is enough. Rightly farmed it will give any man a comfortable living. It will give to every man a neighbor at his door. It will give to the country resident all the advantages of the urban resident without his disadvantages. It will bring to the rural home the best social, educational and religious advantages.

AGRICULTURAL NOTES FROM WASHINGTON

(Doctor True—Experiment Station)
By Guy Mitchell

There is a modest man in the Department of Agriculture, who has charge of one of the most important sections of that portfolio—A. C. True, Director of the Office of Experiment Stations. Unobtrusive and conservative, Doctor True has had for years one of the hardest worked divisions of the Department, and has seen it grow from small to very large proportions, keeping pace with the growth of the Department itself. It has been frequently said that if there seemed no place else in which to put a new investigation or work, why let the Office of Experiment Stations have it. So many unclassified studies resulting from the varied work in which the Department is engaged in connection with the various experiment stations in all parts of the country, have come before the former that it has been natural that the Office of Experiment Stations should assume their prosecution. The scope of the work of this office is therefore wide. Outside of the office work at Washington, it includes the important Alaska station, in which Territory there are immense possibilities for improvement in agriculture, the Hawaiian station, where the opportunity for the government to develop diversified agriculture and horticulture is equally great, the Porto Rico station, in which Island a most important agricultural evolution is in progress, and such special work as nutrition investigations, irrigation farm investigations, and other experiments which, as stated, come before the Department and which do not seem to exactly fit any other division. Doctor True's bureau might therefore be designated by the unwashed as a "dumping ground," and possibly it is; but out of its selections from the heap have come some of the most useful information to the country.

Farming Education

As a single instance, the office has taken up vigorously the subject of agricultural education and nothing could be more stimulating and instructive than Doctor True's own words on the question of the progress of agricultural education in the United States. Listen to this summarization of its forward movement.

"Agricultural education is making friends everywhere. The President of the United States, the Secretary of Agriculture; the governors of several states, the presidents of some of the great universities, and other officials high in the councils of the nation have given public utterance during the year

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to their belief in the instruction of the masses of our rural people along agricultural lines. Numerous bills providing for additional federal aid to agricultural education of different grades have been introduced in last Congress, and the state legislatures have given in several states large and in many instances substantial aid to agricultural colleges and schools and to itinerant agricultural enterprises of educational nature. The Association of American Agricultural Colleges and Experiment Stations, the American Association of Farmers' Institute Workers, the National Grange, the National Farmers' Congress and other large associtions of educators and farmers have adopted resolutions declaring in unmistakable terms their belief in agricultural education and their desire that it receive more liberal support. And the newspapers and periodicals all over the country have given expression to public sentiment in these matters.

"This office is endeavoring to aid this movement as a general agency, cooperating with the other branches of this Department, the State agricultural colleges and experiment stations and the State departments of agriculture and education. It is hoped that in this way it may be possible to incorporate speedily in courses of instruction in agriculture whatever useful results are obtained in the research work of the Department and the stations, to bring the results of experience of agricultural education at home and abroad to bear on the problems connected with the development of a system of public education better adapted to the needs of our rural communities, and to enable the rural people thruout the country to understand what is required to make their schools more effective and to take proper measures for the enrichment of country life and the permanent prosperity of American agriculture.

FRANCE HAS FAR-SIGHTED FOREST POLICY

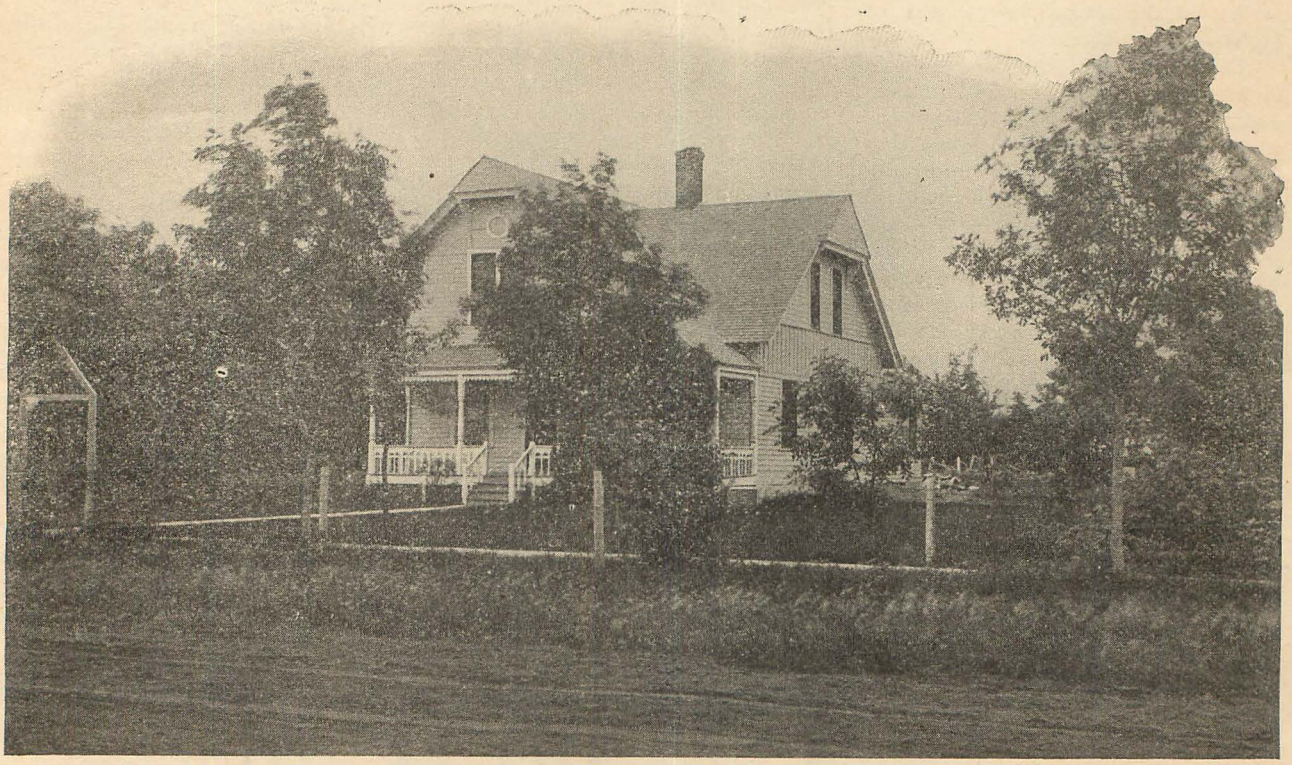
France has under way a far-sighted forest policy which will require two centuries before the work reaches its greatest efficiency. The plan covers the reforestation of vast tracts of denuded land and the work is in the hands of 4,000 trained foresters in the pay of the Republic and a large number of men employed by the communal governments.

Consul General R. P. Skinner tells how this work is being done by a great nation keenly alive to the necessity of doing it, and determined that it shall be done well, tho years and centuries are consumed in the doing. Colbert, in the reign of Louis XIV, exclaimed: "France will perish for lack of wood," and his prophecy was coming true a century and a half ater, when the French people waked to the peril which threatened them, and called a halt.

Their forests were vanishing as are those in the United States today, but the depletion had gone even farther than it has yet gone in America. France commenced protecting and restoring its wooded areas nearly a century ago, and has stuck to the task ever since, but so much yet remains to do that Mr. Skinner says in his report:

"The work is slow. It will require probably 200 years to bring it up to its maximum effectiveness. But the time is foreseen when existing damaged forests will be reconstituted, and when all the waste spaces will be replanted to the point of proper proportion to insure the conservation of the water supply, and to furnish the timber and wood required by the population. The effect upon private landowners of this public work has been most salutary. Where absolutely bald mountains have been replanted, very surprising local results are now visible to all observers. This is especially true in the Hautes Alpes which had the unenviable reputation of being the poorest department in France, and is, in fact, one of the few from which the United States has received several thousand French immigrants. There are now many artificially planted forests in this department of 25 years' standing, and in the bottomland below, conditions have so improved that a state of general prosperity prevails."

The plan of the French foresters is comprehensive. It embraces the care of forest land, planting of trees, fixation of dunes near the coasts to prevent the drifting of sand upon agricultural land,



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correction of mountain streams, regulation of pasture land, utilization of water in pastoral and forest regions, and the surveillance of river fishing and fish culture. This comprehensive service extends to every part of the Republic.

The area of the National Forests of the United States exceeds twenty-fold the National and communal forests of France, but the problems are the same. France has been longer at the work and when it began its forests were in a worse condition than ours are now, but not worse than our privately owned forests will be if present methods continue.

Consul General Skinner concludes his report with this suggestion to those in America who have shown sufficient interest in the matter to write him on the subject:

"If correspondents could penetrate, as the writer has done, the almost inaccessible mountain villages of this country, and there discover the enthusiastic French forester at work, applying scientific methods which can not come to complete fruition before two or three hundred years, they would retire full of admiration and surprise and carry the lesson back to the United States."

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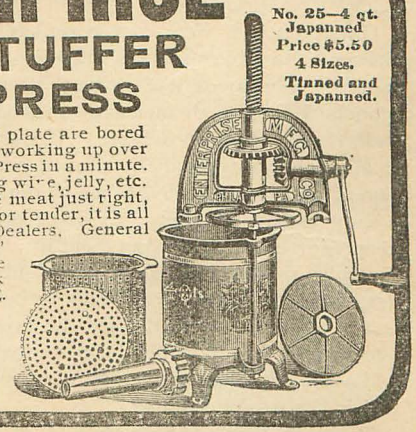

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THE CHARACTER OF PUBLIC SCHOOLS

Prof. C. B. Waldron

The evolutionary process, sufficiently continued, is supposed to develop a product approximately adapted to its surroundings. In the realm of biology this is largely true. The wing of the bird, the gills and fins of the fish and the leaves, fruit and roots of plants all clearly serve their immediate and necessary function in a manner that fairly meets the requirements of the individual and the species.

This is true in biology for the reason that Nature has no preconceived ideas and is not committed to any particular form or conception. If a thing is fit it survives, if not it is banished from earth without fuss or formality.

In Nature usefulness determines existence. Things without worth are killed and cast aside. They must fit into their surroundings or the surroundings crush them out of existence. While the process is without pity, it is also without malice but there is no resisting the decree. The result is a world in which all things have their normal function and the fact that a living object exists at all is proof of its fitness.

In the social world this process of trying and elimination is much less direct and positive.

Human society is different than nature in that it has its fads and fallacies that bias and prejudice compel it to retain, tho it would be quite impossible to establish their fitness or usefulness.

People in the mass cannot see clearly nor act wisely enough to disown and abandon the social, religious, political or educational forms and institutions that they have been born into, even tho these forms and institutions are demonstratably unfit and unworthy.

Our cowardice, our bigotry or our inertia keep us chained to forms and practices in nearly all the realms of our existence that a reasonable degree of progress and enlightenment should speedily free us from. We can never acquire that calm and wholesome habit that nature has of destroying that wihch is not essential and useful, retaining only the fit and needful but it does seem as tho we need not always pursue the opposite course with such unleavened persistence.

If we could oftener free ourselves from prejudice and the swaddling clothes of custom, so that we might exercise in the freer and ampler world that all of us might find if we would dilligently seek, how great would be our reward. As in nature, so in society, all things should be made to prove their use. In such event our political, religious and educational institutions would continually change to meet their new surroundings of increased knowledge and improved practices.

True, this adaptation is taking place and with accelerating speed. Truth is valued even today by some as of greater worth than tradition, and some clear eyes can see that the institutions of our fathers are not necessarily the ones of greatest use and economy for ourselves. Society is coming to see that its own highest existence depends upon the free operation of the law of the survival of the fittest.

The laws by which nature has enacted her manifold forms each suited to its particular conditions, are seen to be the laws that must operate in society if our forms and institutions are to meet the fullest requirements.

As a general proposition all public institutions should be a natural expression of the community in which they exist, that is all institutions should be developed in response to a rational demand, not a demand based upon tradition or a supposed need, but because of a real and vital need measured from the highest and broadest standpoint.

It would seem easy to bring society to this point of view and to induce it to act in accordance thereto. With all due allowance for difference of opinion and questions of expediency, this is surely not the case. As an example used simply as an illustration and in no sense as a reflection, if all our creeds were to be wiped out of existence today and men were forced to forget them and to formulate other systems of belief built upon our present knowledge of cosmogony, anthropology, and biology, how many of you imagine that we would find ourselves repeating the same old creeds.

This is true of all other institutions where traditions are strong and out prejudices are active. It is not true of financial institutions to any appreciable extent for these grow out of immediate

needs and conditions and have to do with that in which men are governed by their direct interest and not by personal bias.

It is unfortunately true to a large extent of our educational institutions. What answer would you give today to the question: "Why should we educate?" Your answer should be: "To teach man to work well."

In earlier days the answer would have been "To enable man to escape from work."

Our point of view has completely changed; have our schools changed to meet it? Our modern doctrine that our schools should teach men how to work well, should need no defense. If there is any other way than by useful, consistent and well directed labor to make a man useful in society; to make and keep him clean, sane and healthy; to give him poise, breadth, independence, yes, and culture, too, if you will—if there is any other way than this for the average man, it has not yet been evolved while all experiments to the contrary end in distressing failures.

To teach how to work well—that is our mission.

To accomplish this our schools must be an expression of the life of the community. Not that they should never stand for anything more than is repreesnted by the social and intellectual status of any given community, but they should never be anything beyond and outside of the life and interests of those who create and maintain the school.

The average man—and 'tis he for whom our schools exist, must find such contentment and happiness of a satisfying kind as he is ever to know in his immediate task and his daily surroundings. Those who go to the pains of looking for a good time rarely find it and mostly regret it shortly after if they do.

All this means that our opportunity lies in bringing to men's daily task an assistance and enlightenment that will make their work in a sense a pleasure and means of further education, rather than simple drudgery.

Let me assure you that this statement is not put in for effect. It is based upon direct observation and positive knowledge in a number of individual cases so great as to give to the statement the force of a general law. Not because it seems reasonable but because we know it to be so can it be safely affirmed that he who knows enough of his work to understand the principles and processes involved, is reasonably sure to find pleasure in it. This is particularly true in instances where the occupation is of a complex character and based upon a number scientific principles interesting in their operation.

It is here also that schools have their opportunity. The more intricate the occupation, the more it depends upon the operation of scientific laws and the application of scientific principles, the greater part the schools can play in adjusting those whom they educate to their life vocations. To establish a relationship at once congenial and profitable between man and his undertakings is the serious business of society. Involving as it ordinarily does, a knowledge of more or less intricate character, it would seem that the schools are the natural agencies for bringing about this condition.

Where the number to be trained in any given profession is relatively small, as in law or medicine this training by means of which one becomes equipped in his work, is easily supplied by special schools that serve their purpose well. It is when we come in contact with a profession made up of the great bulk of our population that professional training becomes a highly serious matter. We have hitherto dodged the situation, largely, I imagine, because it is so serious. The very immensity of the problem has appalled us.

Still when we reflect that the prosperity of our commonwealth is based upon intelligent understanding and rational practice in this master profession, we will come to understand that in some manner or other the problem will be worked out and in the solution the schools will doubtless appear as the dominant and commanding factor. They must shape themselves for this work. They must get into an intelligent and useful relationship to the communities in which they exist. They must be moved by the same spirit and quickened by the same pulses that exist in the school region, differing only in this, that they lead and direct these impulses.

The school may and should be in advance of the thought and practice of a community but it should be of the same kind and character. It should live the same life, see and work with the same things and seek the same end The lines of its activity may be much the same as now but differently inspired and directed. That is to say the schools should seek out what is interesting, stimulating and educational in those vocations that are likely to be followed by the mass of the pupils, and direct their education in a large measure along those lines. The few who follow other lines will not be defrauded. Their education will doubtless be quite as stimulating and useful as they now obtain, while there is the further consideration that their needs are taken care of in the special schools already provided. To

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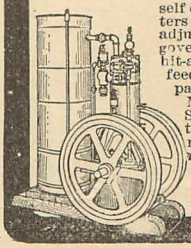

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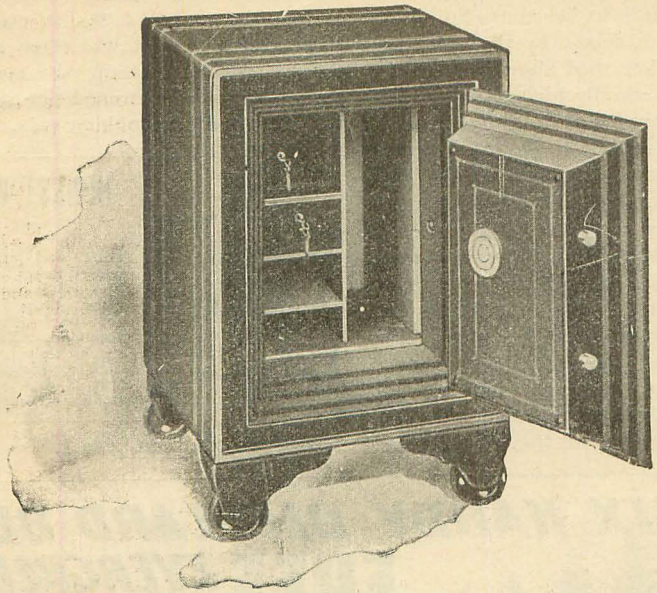

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apply all of this to our own situation is what is demanded of us. Our problem, tho great, is clearly defined.

Our one important occupation of agriculture is sure to be the chief factor in our industrial life for generations to come. The great majority of those attending our schools will follow this as a vocation. Whatever distinction North Dakota ever attains will be thru the mastery that her people acquire of this profession. To acquire such mastery demands that our best brains and talents be devoted to that end for the problems encountered by those engaged in agriculture are many and complex, demanding business ability, keen observation and a clear, quick understanding as well as a generous fund of scientific information.

Unless all these are developed and employed in connection with our dominant occupation we may as well resign ourselves to an inferior place among the people of the nation. We are priviliged to advance along many lines of course, but all the while there is one great physical basis that underlies and supports all the rest, and unless that be maintained in a state of health, it is folly to expect any great progress anywhere along the line.

If we would gain our proper standing then must we direct our energies in those directions that promise most

If we would destroy all hope of dignity, distinction and independence then let us arrange our educational system to take out of our great, wholesome, vital, sustaining profession all those with unusual ambitions and abilities.

Which of these two propositions do our schools stand for?

(Continued in January Issue.)

WHEAT PRICES

There is a shortage in the world's wheat crop and the pricees are bound to remain good. Here is the way the Chicago Record-Herald sizes up the situation.

For years dollar wheat has been the cry of the farmer. He has thought if this could be realized he would be happy and prosperous and all would be well with the country.

Today the farmer is selling his wheat for a dollar a bushel or more, and it doesn't have to be very good at that to bring the long-coveted price at the barn door in North Dakota, Kansas or Nebraska. The farmer hasn't as much wheat to sell as in some previous years, but he is getting a larger aggregate sum for his crop than ever before.

The seriousness of the situation, from the consumer's point of view, is shown by the action of the Chicago market. Friday, owing to the stock market tangle in New York and the resultant un-

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certainty, the prices of wheat went down about two cents a bushel. On this slight break from the unusually level foreigners rushed in and bought every bushel of grain and barrel of flour offered for sale, the export business being the largest ever recorded for a single day. The result was that wheat prices gained twice as much here yesterday as they had lost the day before.

The anxiety of the foreigners to buy on every break shows that they must have the wheat regardless of price. The American crop this year, a little over 600,000,000 bushels, is said to be barely enough for home consumption. But for two months of the present crop year American wheat has been going to Europe at the rate of 5,000,000 bushels a week, and the visible supply, which ordinarily gains very largely at this time of year, has been showing a steady decrease. Had it not been for the unusually large supply carried over from the previous crop the shortage already would be felt, as the wheat is being exported or ground into flour faster than the farmers are selling it, even at the attractive prices now being paid. What the sitution may be before another crop is harvested is problematical. Some prominent grain men in Chicago have predicted that prices will go higher than at any time in a generation, and others are hoping that the farmers have larger reserves than the crop figures issued by the government would indicate.

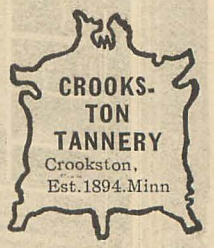
The fact is that there is a shortage of wheat all over the world. The Russian crop is 40,000,000 bushels smaller than last year, and there was a famine over a large part of the Russian empire last year. The Canadian crop is only half as large as a year ago. In Roumania and Hungary the yield was almost cut in two. India has little wheat to sell, and most of that raised in Argentina last year has been eaten before now. The consequence is that the importing countries of Europe must draw upon the American supply or go without bread. They must pay whatever price is demanded, and the result is bound to be felt in the United States.

SEED CORN SELECTION

"Nice" Ears Versus "Good" Breeders

By Prof. A. M. Ten Eyck

Some farmers object to the use of the score-card in selecting seed-corn, claiming that the "nice" ears of corn which would be scored high by the judge may not be "good" breeders. It is true that the highest scoring ears of corn are not necessarily the best breeders, but it is equally true, as shown by the breeding experiments described above, that high producers are usually high scoring ears, namely, a "nice" ear is not always a "good" breeder, but a "good" breeder is always a "nice" ear of corn. Well-formed ears and well-developed kernels, as required by the score-card, are certainly associated with a large yield and a good quality of grain. Moreover the actual facts, as presented in the ear test, bear out this statement. With few exceptions, the high-yielding corn has always been the corn which scored high. Not only does the record of the breeding show this, but the writer made a careful observation on this point last season, and in examining some 400 piles of corn, the product of 400 different ears of several breeds, it was often easy to observe without scoring the corn that the largest piles contained the breediest and most uniform looking ears.



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AT THE AGRICULTURAL COLLEGE.

AGRICULTURAL COLLEGE NEWS

G. P. Grout

Thru the influence of Dr. Batt, of the department of modern languages, Enos A. Mills will address a meeting at the Grand on Dec. 8th. Mr. Mills's subject, "Our Friends the Trees" will be of great interest, especially as one of the most important means to the furtherimprovement of the state of North Dakota is the growing of timber, therefore, the citizens of Fargo are to be congratulated in getting such an able speaker as "Long Peake Guide" to address her people. The department of forestry have been doing a large amount of work in an educational way with the hopes of stimulating a deeper interest in tree growing thruout the United States. That the advantages of timber culture are numerous, no one will attempt to disput, but among the many, the most important from a North Dakota standpoint, are the effects it has on the climatic conditions As shelter from the cold winds alone, timber is worth far more than it costs to cultivate it. Then too the roots of trees penetrate deep into the soil and form openings which tend to conduct the excess surface water into the ground. The water sinks into the soil and comes out here and there in refreshing streams. On the other hand forests prevent an excessive loss of moisture during dry weather by breaking the force of high winds which carry with them an immense amount of humidity.

Along the lines of Forestry, Prof. H. B. Bolley, in a recent article makes the following statement: "The state itself might well engage in tree planting, both as an object lesson and for future money making. I believe, for example, that the large public school fund that is now being let out at small interest could in part as well be expended in the growing and protecting of small forests upon certain rough lands in every county which belong to the school fund. Some system of forestry devised around this idea would eventually, in twenty-five or thirty years result in not only beautifying and benefiting the state at large from landscape and atmospheric conditions, but would furnish the state school fund large returns in actual cash paid from a safe depository."

Pansy Staples, supposed daughter of Staples, Georgia Gongdon.

Alice Barrington, Maude Randall, Constance Havenmyer, Ella Humphreys; students of Ellendale Seminary; Louise Solichy, Agnes Halland, Mable Fiers J. Thompson. Rosy, Kate Hathaway.

Holland

At convocation exercises on Monday, President Worst delivered a most excellent address on Holland. He at once gained the attention of his audience by saying: "God created the earth where people should dwell, but the Dutch had to make their own country." The President said that had it not been for the industry of this people their country would still be in the bed of the ocean. Their country has a greater history than Greece or Rome. In order to build their now fertile land, they had to endure great privations. It is not known just when this conutry rose from the sea, but the Dutch have been working for many generations to reclaim it.

Two thousand years ago when the Romans first discovered this land, they called it Netherlands because as they said, it was neither sea nor land. When the tide was out, marshy bottom was visible but as soon as it returned, the land was covered with water to such a depth that an important naval battle, employing large ships, was fought where now may be seen a most beautiful and productive stretch of land.

Deposits of mud were left from the rivers which empty into the ocean at this place, forming deltas much like the one at the mouth of the Mississippi. This delta formation soon rose above the water, and by throwing up dikes, the Dutch were able to keep the water out so that the land could drained by large canals. The sea ebbs and flows twice every twenty-four hours and at high tide rises some 75 feet, altho on an average it rises only 5 feet. It is impossible to build dykes high enough to keep out the highest tides, so that farmers have to build mounds to live on with their flocks and herds. Sometimes when they take their position on these mounds, they are driven further and further back as the water rises higher and higher.

The dykes built to keep out the water are about 60 ft high and 15 ft. wide. The canals which drain the land and empty into the ocean when the tide is out are large enough to admit boats for traffic, and about three-fourths of the freightage is carried on boats. These canals and ditches are located about every 60 ft. thruout the entire country. They all lead to the sea and have automatically regulated gates which open when the tide is out, letting the water out of the canals, but the gates close when the tides come in and keep the water off the land Not only do these canals drain the land, but the gates are so arranged that the water can be retained in the ditches if there is lack of rain. Thus they have the moisture perfectly under their control and are able to grow very heavy crops. The dairy business is their chief occupation and it is astonishing to see the number of cows that are kept on a small amount of land.

Holland is a little larger than Barnes and Cass counties but supports a population of 6,000,000 people. There are about 500 people living on every square mile. Those countles have about twenty-five thousand population. If the Dutch had possession of the Red River Valley they would drain it and make it support a population almost beyond comprehension.

To William the Silent is due much credit for teaching this people how to reclaim the land. He voiced about the same setiments as our own Jefferson. He was worshipped as a hero by his people much as we worship Lincoln and strangely enough, met the same fate.

The Dutch are so patriotic that they have at times turned the sea loose over their fair land to fight battles for right and liberty.

The Agricultural Club

The Agricultural Club held its regular weekly meeting Saturday evening, Dec. 7, in the College Chapel, at 8 p. m. The program was as follows: Music, Agricultural Club Male Quartet; Address, Mr. T. A. Hoverstad· First Northwestern Live Stock Association Show, Geo. P. Grout; A Visit to the Minnesota Dairy School, Arthur Ueland; The Packing Houses of St. Paul, Siever Hoveskeland; Criticisms, H. J. Hughes. All students of agriculture are given a cordial invitation to attend.

On Friday Dec. 6th President Worst delivered an address at the meeting of the Cass County School Officers that was held at Casselton. They have asked him to talk on Educational and Farm Interests of the United States Compared with those of Europe.

While in Washington Prof. Ladd and three other food commissioners had three conferences with President Roosevelt. While there he arranged with Dr. H. W. Wiley to speak at the Tri-State-Grain-Growers' Convention in January. Dr. Wiley is head of the food department and chemist for the United States Department of Agriculture.

See "Personal" on page 1.

North Dakota Farmer
AND SANITARY HOME.

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Vol. 9 DECEMBER, 1907. No. 6

The National Consumer's League of America, at a recent Conference held in Cranford, N. J., passed the following resolution:

"RESOLVED, That this Conference endorses the work of Commissioner E. F. Ladd of North Dakota, to have bleached flours labeled so that the consumer may know when low grades of flour have been bleached to resemble the better grades."

WINTER TERM

The winter term at the Agricultural College opens January 2nd, and promises to be one the more largely attended by by students from all parts of the state than any previous term in the history of the institution. It is fortunate that the College is now better prepared to take care of its students inasmuch as the new Engineering Building affords ample room for a large increase of students in shop and forge work, as well as in steam engineering. The new dormitory for girls insures a place where room and board can be had at a reasonable price.

The Short Course in Agriculture, Stock Judging, Wood-work, Steam Engineering and Domestic Science are all popular with the young people of the state, and, undoubtedly, a large number will be found in each of the classes.

GRAIN GROWER'S CONVENTION

The Tri-State Grain Grower's Convention will be held at Fargo, Jan. 14th to 17th. This annual gathering of the farmers of the state has come to be one of the most important gatherings of the year. Not only has it attracted wide attention thruout the state, but it has from the character of its deliberations, attracted wide attention, thruout the country. Every farmer in the state who can find time and means should attend this Convention and spend the week in Fargo, and I am sure that everyone will be well repaid for the effort.

Some of the most important subjects before the people of the state will be carefully discussed by men who are competent to deal intelligently with the subject, and the discussions, which are sure to be provoked, will afford ample opportunity for all to express their views or gain the information which they desire.

DENATURED ALCONOL

Considerable has been said with regard to the possibility of using denatured alcohol successfully for heating and lighting purposes. Statistics show a good growth for denatured alcohol during the present year; in fact, in excess of what was estimated by the Congressional Committee. It is interesting to note at this time also that there has just recently been brought out a series of lamps using alcohol for lighting purposes. These are patterned very much after the usual house lamp, but have the advantage of the incandescent mantle, the same as found in use upon gas jets, thus furnishing a much better light, and one that can be taken about from place to place with no danger or explosion.

There has recently also come upon the market flat-irons so constructed as to be heated and used like the electric iron, but it has the additional advantage that it may be carried about from place to place, and an electric current is not necessary for its use. It is claimed that a six-pound iron consumes four ounces of denatured alcohol in from 1½ to 2 hours, and even at the very high price now charged for this product, double what it should be, it is said that the average cost for running the iron would be about 2 cents per hour. It is quite likely that we may see a more general use of this product in our homes during the next few years.

THE AMERICAN FARMER

Never was there a time when the American farmer was more prosperous than today, in spite of the fact that there seems to be a temporary depression. According to the Report of the Hon. Secretary of Agriculture, the farmer has provided the country with agricultural commodities that are equal to the average of recent years in quantity and way beyond the needs for national consumption. The Secretary estimates that the value of the food products for 1907 amounts to $7,412,000,000.

As showing the rapid increase by year of the value of the farm products, the Secretary states that if the value of the products is 1899 be taken at 100, then their value for 1903 stands at 125; for 1904, at 131; for 1905, at 134; for 1906, at 143 and for 1907, at 157. This certainly shows an enormous increase in the productive wealth of the agricultural portion of the country during the past nine years. And with no great abundance of food material in the American warehouses, it is safe to say that agriculture can feel but little depression, for there must be a demand for all the farm products that are produced, either for our own consumption, or that of foreign countries.

FRAUD HURTS THE FARMER

Too often we forget that the fraud practiced by others may be the cause of ruin to our own business. Permitting manufacturers to produce and sell maple syrup prevents the farmers in the maple region from securing reasonable remuneration and, thus, the development of this industry is checked. The great wine industry of France suffers, and why? Not from the over-production of wine, but from the overproduction of wine products which are produced by the manufacturers and not products of the vineyard. This forces the genuine article off from the market, and thus destroys a great industry.

Wherever we permit of fraud and deception we are always injurying some industry that is of benefit to agriculture, and the promotion of the fraud is not for the development of agriculture. We must not lose sight of the fact that the prosperity of our country depends, especially in this northwestern portion, almost wholly on the development of agriculture. We cannot, therefore, afford to permit the practice of fraud, which permits of the use of imitation products to be sold for other than what they are. Not for a moment should we restrict the sale of any imitation product, which is suitable for food, but let it be sold for what it is, and not under false names. Let North Dakota flour be produced from North Dakota wheat and sold on its merits, and it does not then come in competition with flours of Nebraska, Kansas and other parts of the country, because it is of a different type and of a superior quality. But the moment you permit fraud, you allow these products to be substituted in place of the genuine product, and, thus, the price of the better article is depressed to that of the inferior one

AMONG OUR ADVERTISERS.

Mr. Herman Reel of Milwaukee, Wis., announces in this issue that he will pay high prices for all fur and wool and will sell fur coats at wholesale prices. Write him for price list, etc.

Those farmers or breeders seeking Poland Chinas of the highest type should consult G. F. Fischer, Atwater, Minn., who has some choice stock, the result of careful selecting and mating of State and Interstate Fair prize winners, from sires weighing 800 and 1000 pounds.

The Chanticleer Poultry Farm of Mankato, Minn., publishes a large illustrated catalogue showing 40 Breeds of High Grade Fowls, and containing much information of value to every poultry keeper. Read their advertisement in this paper and investigate the special inducements they offer you to become their customer.

In another portion of this magazine appears the announcement of the recent decision of the Supreme Court sustaining our paint law. It is gratifying to the management of this paper that we are patronized only by the very highest grade of paint manufacturers, who have always been ready and willing to comply with the letter and the spirit of the law. Will you not show these advertisers your appreciation of their square dealing?

RURAL SCHOOL AGRICULTURE

This new book is intended to meet a long felt want on the part of both teacher and student in the application of principles underlying agriculture that are especially adapted for school-room work. The fundamental principles and operations are thoroly taught and practice is afforded by simple experiments which will enable the student to think and work out the scientific principles affecting the scienceof agriculture. Every exercise has been prepared with a view to interesting the pupil and the work is made as attractive as possible. Price $1, published by Orange Judd Company, New York City.

THE WORLD'S RECORDS BROKEN

15,000 Clay Targets Without a Miss, with a Rifle. Over 1600 Small marbles also hit.

Fair Play, Mo., Nov. 20'

Mr. J. W. Akard, a resident of this town, has established a new world's record for rifle shooters, by breaking 15,000 clay targets without a miss, tossed in the air by himself. Mr. Akard did not break all of these targets at one time, but spread the performance over six days, taking up the run on each successive morning and working until he became tired.

Sometime ago Mr. Akard hit 1659 small marbles which he also tossed in the air himself. Some of the champions whom Mr. Akard has displaced had an assistant do the tossing of the objects, but Mr. Akard undertook to do that part himself, which of course made the feat all the more difficult. Both of the records which Mr. Akard broke were heretofore held by Mr. Topperwein. The best he could do on large targets was 8862 and on the small marbles 961. Mr. Akard's runs were therefore nearly twice as long.

Mr. Akard used a familiar kind of repeating rifle and U. M. C. .22 short cartridges.

This little town is very proud of its wonderful trick shot, who until his engagement with the Union Metallic Cartridge Company and Remington Arms Company has been a quiet and unassuming farmer.

TO MAKE GOOD COOKING BETTER

Valuable Cook Book Containing Hundreds of Choice Recipes and Other Kitchen Helps, to Be Sent Free to Our Readers, on Request

Here is something that should have prompt attention at the hands of everyone of our readers. Do not postpone it.

The Enterprise Manufacturing Company of Pennsylvania, 249 Dauphin Street, Philadelphia, has just gotten out a new and up-to-date edition of their valuable cook book, "The Enterprising Housekeeper." The regular price of this book is 25 cents, and it is well worth it, but everyone of our readers can get it absolutely free, simply by writing to the Enterprise Manufacturing Company and asking for it.

"The Enterprising Housekeeper," in addition to recipes for hundreds of delicious dishes, contains many suggestions for labor-saving kitchen helps. It shows the ways of using the Enterprise Meat and Food Choppers, and other Enterprise machines to the best advantage. Many women will be astonished to learn the trifling cost of these machines, the work they save, the almost endless uses to which they can be put, and the delicious dishes they prepare. The Enterprise Meat and Food Choppers chop any kind of meat, raw or cooked, easily, rapidly and well, and best of al, chop without crushing. Fish, vegetables, and practically every kind of food, can be prepared with these machines as in no other way.

Those of our readers who desire a copy of "The Enterprising Housekeeper" should get their request in as soon as possible.

INTERESTING PRIZE COMPETITION

The Commercial Club of Portland, Ore., with a view to advertising the State of Oregon and the City of Portland, has offered a series of prizes for newspaper articles, to appear in newspapers which are published outside of the States of Oregon and Washington.

These articles must appear in a regular edition of some well established newspaper or similar publication, must be dated on or before December 31st, 1907, and a copy of the publication complete must be in the hands of the judges not later than February 1st, 1908.

These articles must be sealed and addressed as follows: Prize Contest, Care Portland Commercial Club, Portland, Oregon.

These papers will be judged by three judges to be named by Governor Chamberlain of Oregon. Contestants can treat any phase of the subject that appeals to them—Natural Resources, Scenery, Irrigation, Agriculture and Horticulture, Timber, Dairying, History, Educational and Religious Advantages, Climate, Social Conditions, etc., or in a more comprehensive vein.

The prizes to be competed for are as follows:

First prize	$1,000
Second prize	500
Third prize	250
Fourth prize	200
Fifth prize	175
Sixth prize	150
Seventh prize	125
Eighth prize	110
Ninth prize	100
Tenth prize	90
Ten prizes of $75 each	750
Ten prizes of $50 each	500
Ten prizes of $25 each	250
Twenty prizes of $15 each	300
Twenty prizes of $10 each	200
Three judges to be named by Hon. Geo. E. Chamberlain, Governor of Oregon	300
Grand total	$5,000

These prizes are offered, not with a view of having socalled boom articles published, but in hopes that a series of really valuable articles on Portland and Oregon may be written, and thru them the people outside of Washington and Oregon become more thoroly familiar with the North Pacific Coast country.

This series of prizes should attract very general attention and result in a competition which, to say the least, ought to be very interesting.

Additional information can be obtained by addressing the Portland Commercial Club, Portland, Oregon.

TELEPHONE NEWS OF IMPORTANCE TO FARMERS

Some time ago the report was circulated that the Western Electric Company, the concern that manufactures the apparatus used by the Bell companies, would hereafter sell telephones and supplies to all buyers.

President Theodore N. Vail, of the American Telephone and Telegraph Company, in a recent interview has now confirmed this report. He explained that the idea had been under consideration for a long time, but that heretofore one difficulty had been that the Western Electric Company needed more plant, its full energies being required to supply the demands of the Bell companies alone. This obstacle to doing a general business has been overcome by the recent completion of very large additions to the Chicago factory of the Western Electric Company, and hence it is now in a position to take care of outside orders.

In reply to a question as to the probable effect of this action on the revenues of the American Telephone and Telegraph Company, Mr. Vail said that no considerable direct increase was anticipated, but that a great indirect advantage was looked for from improved relations between the public and all of the associated Bell companies, because there has been an entirely erroneous idea more or less prevalent, that the charges ofthese companies for their services were based on a monopoly of telephone instruments. while the fact is that the instrument is but a small part of the plant required in giving telephone service. It is felt that this action may cause it to be more clearly understood by the public that the Bell companies only claim for patronage is based on their abiilty to furnish the best service at reasonable prices, and not on any instrument monopoly.

Mr. Vail explained that at the present time many inefficient telephone instruments are in use on local and private lines, and that the Bell companies desire to see these replaced by standard instruments in order that it may make traffic connections with the greatest possible number of properly equipped lines, assuring proper service and transmission. For example, there are thousands of socalled "farmers' line" which will furnish valuable feeders for the toll lines of the larger system when properly equipped and maintained. This situation can now be provided for thru the sale, outright of Bell instruments and apparatus.

In answer to the question as to whether it was intended that the Western Electric Company would become an aggressive competitor of the independent manufacturers who, up to this time, have had a monopoly of the selling trade, the only reply was that the Bell interests were fully prepared, either from the manufacturing or operating side of the business, to meet all the needs of the public, and that they wished to demonstrate their ability to meet these needs under square, competitive conditions of quality and price. There would be no trade-war, but any manufacturers who have been getting high prices for inferior goods under the old monopoly of the selling trade would naturally suffer a loss of business.

ECONOMY IN BUYING STANDARD GOODS

One of the noteworthy changes that has taken place in all lines of rural trade within the past few years," says a traveling man whose occupation takes him into all parts of the country, "is the way in which the farmer has come more and more to demand the best goods. In almost every line there is some one brand and in some lines several brands that are recognized as 'standard'. They are usually goods that have built up an extensive market by judicious advertising and are holding onto it by their merit. In every line there are also inferior goods which sell for a little less or which yield the retailer a higher rate of profit. They are the 'just as good as the advertised kind' that your storekeeper sometimes tries to induce you to take, and on which you may be generally sure that he makes a higher profit.

"Formerly the farmer was counted on as a ready purchaser of whatever sold for the lowest price or whatever the local dealer offered him. Usually he bought on credit and so had little choice and he would take a substitute article to save a few cents even when it had been demonstrated that it would not last as long or do as good work. Within the past few years, however, many farmers have been able to secure perhaps even more than their share of worldly possessions and as a result they no longer buy goods on socalled 'easy terms' which have been held out as an inducement to them in the past, but have become cash buyers fully realizing that they can buy the best material by paying cash for it and at a lower price. With more money to spend they have wisely adopted the plan of demanding the best, finding that it is the cheapest in the long run Then too, every rural household has one or two good farm papers and popular magazines coming to it and from perusing the pages of these publications—the advertising pages as well as the others—they have come to be discriminating buyers and to know the standard articles in every line.

"A good example of this tendency came to my notice a few days ago in talking with a salesman who handles electrical supplies. At this season there is a great demand for telephone equipment among the rural, cooperative lines that are being overhauled to put them into good working condition for the winter. As is generally known a great many of these lines were built in the cheapest possible manner, often by unscrupulous promoters who have turned them over to the local associations at high prices, and many of them have broken down after a short period of service. My informant told me, however, that in many instances these lines are being equipped with standard apparatus and that the recent decision of the Western Electric Company, which heretofore has manufactured only for the Bell interests, to sell its products to all purchasers has given these local organizations an opportunity to improve their equipment, of which a large number are taking advantage.

"Instances of the same kind could be duplicated in many lines of business, all showing that the farmer knows and demands the standard article in every line of business. While hard times may come again and farmers may have less money to spend they are not likely to go back to the use of shoddy or 'just as good' articles, for experience has shown them that it pays to buy the standard, advertised, wellknown brand of goods.

A GOLDEN BUTTER MINE

Butter is high price—so says every housekeeper.

And the natural laws of season and pasturage will send it higher—they always do.

Butter demand is growing—constantly.

And demand for best butter is growing more rapidly than for average butter.

Less supply than demand will boost prices. Making better quality butter—the best quality—will push the prices up faster than anything else.

This is the butter situation which today confronts the dairyman.

It's one of the opportunities which come to men, which if embraced lead on to business profits.

Your dairy, Mr. Dairyman, is a mine—a gold mine, if you please. It's more important to you

than the doings of the money centers—and more important, collectively, to the Nation.

It's for each dairyman and dairywoman to decide whether and how much they will share in the butter gold mine, or whether they will let go by default the products and profits they may enjoy.

The world's financial centers blow hot and cold, as power and men change places.

The dairies of the country, with the demand for butter from an always increasing population which depends upon them, are a business machine—a butter plant—which can be depended upon for scores of years to come.

Good stock is the first requisite. Nobody questions that.

Next to good stock a centrifugal separator is a necessity—the pan and can raising system of securing butter fat can't keep up.

When it comes to separators there is one different from all others; one XXth century separator; one separator with suspended instead of supported bowl; one oiled-automatically yet perfectly-lubricated machine; one separator without bowl contents; one plain, smooth-bowl separator; one simplest constructed separator—the Tubular. It costs no more to get the best than to buy an inferior "bucket bowl" machine.

These exclusive and invaluable advantages belong to and are held by patents and processes of manufacture for the people who use the Tubular in their dairies.

They are facilities and conveniences not to be purchased nor secured in other separators.

By their help the dairyman and dairywoman can equip his or her home dairy to gain a share from the butter gold mine which exists in every community of the United States and which needs only intelligent working to yield rich profits.

Isn't it time for you, Mr. Dairyman, to be thinking of your butter gold mine, right at your home, ready for the working, capable of yielding big and constant rewards, if only you work it properly?

If you think "yes" write to the Sharples Separator Company, West Chester, Pa., for their "Business Dairying" handbook and regular catalogue. Both free, if you mention this paper. Both books will help you in getting ready to gain largest possible profits from the butter gold mine.

Another fact:—In the beginning of the year 1907 the Sharples Separator Company decided to award an upright piano to some purchaser of a Tubular separator, who had bought or might buy a Tubular separator during 1907. Time still for you to get in the list of eligible purchasers to one of whom the piano will go.

You can get a Tubular at the regular price, and the dairy help and profit the Tubular stands for. You may get a piano—some 1907 purchaser of a Tubular will get the instrument.

But the upward-tending price of butter, and the certainty of a permanent good price for good quality, are the ample reasons why you should be seeking the world's best centrifugal separator, inquiring about and getting acquainted with the Tubular, and shaping your dairy business to share in the gains that the world is giving yearly in larger measure for excellent butter.

See "Personal" on page 1.

SKUNK MINK AND FOX ...TRAPPERS....

We teach you **110 Secrets** free. 90,000 skins wanted. We pay highest prices to get them. **Largest** dealers of its kind in Northwest. References—any banker. We tan Horse and Cattle hides into beautiful ROBES COATS. Price list FREE. Furs held separate if desired by shipper. Horse and Cattle hides tanned for harness leather. Animals and Birds mounted natural as life. All kinds of Fur Work done.

BLACK'S HIDE & FUR CO., River St., Durand, Wis.

Boys and Girls

We are going to give away 1000 Children's Stereoscopes and Fifty Views to the first 1000 Boys and Girls who induce their parents to renew their subscriptions to the North Dakota Farmer. All you boys and girls need do is to have your father send your name and five cents for postage and packing, when he remits for the North Dakota Farmer, and we will send to your address the stereoscope and Fifty views. Your father has forgotten to renew, now don't you forget this offer. Remember 55 cents for one year and $1.05 for three years means a stereoscope for you. If your father has paid in advance, send us 10 cents and the names of ten farmers who do not take the N. D. Farmer and we will send the stereoscope and views. Address

NORTH DAKOTA FARMER,
Lisbon, N. D.

Livestock Department

PROF. W. B. RICHARDS, Editor

REPORT OF THE NORTHWESTERN LIVE STOCK SHOW

The first annual live stock show to be held at the Union Stock Yards at S. St. Paul, Nov. 19-22, was a success beyond the expectation of the management, and great things may be expected of future shows. In spite of the financial depression which is retarding every line of business many exhibitors came out with their exhibits. The attendance was not as large as it would have been had the money market been normal as people are not as ready to patronize things of this nature as they would if conditions were different.

The show was a new venture and some anxiety was manifested previous to the show by the management as to the interest that would be taken in it by the stockmen of the norshwest. This year's show however demonstrated that the show is going to be supported, and in a few years S. St. Paul will be able to boast of having an annual live stock show that will compare favorably with other shows of its kind held at the other great livestock markets.

The exhibits would have been larger and have taxed the capacity to handle them if grain prices had not been so high discouraging many from fitting stock for the show who had planned to do so. The exhibitors were confined largely to Minnesota and Northern Wisconsin. South Dakota was represented by one exhibitor and North Dakota by the exhibit made by the Agricultural College, which every one pronounced as adding greatly to the show. It is to be regretted that North Dakota was not more generally represented for the reason that no part of the territory included within the jurisdiction of the show will be more benefitted by establishing a good market at S. St. Paul. There is no state that sends so many good feeders to this market as North Dakota. There is no reason why more of our stockmen did not make an effort to exhibit stockers and feeders. Our farmers and breeders could also have shown some finished carload lots of swine and sheep, and made some entries in the individual classes. It is to be hoped that many of our North Dakota stockmen will plan to exhibit something next year.

Inaddition to the educational value the visitors derived from studying the exhibits and the judging that took place; each day excellent addresses were delivered by noted authorities on live stock matters. The show was opened on Tuesday morning by an address from Pres. C. N. Cosgrove, Prof. J. H. Shepperd of the North Dakota Argicultural College and E. W. Randell, Dean of Minnesota Agricultural College. In the evening Prof. Audero Boss and Prof. A. D. Wilson spoke on "Diversified Farming." On Wednesday a meat-cutting demonstration was given by Prof. D. A. Gamnity of the Minnesota Agricultural College. During the evening of the same day Prof. C. F. Curtiss of the Iowa State Agricultural College gave an address on Feeds and Feeding. Thursday after noon Dr. A. T. Peters of the Nebraska Agricultural College lectured on Tuberculosis. These addresses and demonstrations added greatly to the educational value of the show.

The students judging contest held during the show was a very interesting feature. Twenty-five students participated in the contest representing the Minnesota, the North Dakota, South Dakota and Washington Agricultural Colleges. The prizes were won by the following stuhents.

1st prize, E. Paulsonn, Minnesota A. C.
2nd prize, G. Morrison, S. Dakota A. C.
3rd prize, M. H. Gee, Minnesota A. C.
4th, E. Farrand, Washington A. C.
5th, W. R. Coolie, S. Dakota A. C.
6th, Geo. P. Grout, N. Dakota A. C.
7th, L. Scott, Washington A. C.
8th, Roy Hall, S. Dakota A. C.

Cattle Awards

The grand champion steer of the show was a white two-year-old owned by C. E. Clarke of St. Cloud, Minn. He was a very thick-meated steer but lacked some in type; therefore many thought the Aberdeen Angus two year old steer shown by the North Dakota Agricultural College should have been placed above him in his class, and given a chance for grand championship. The exhibit as a whole was very creditable in the single entry fat classes. The awards are given in full.

Pure Breds

Steer or heifer two years old or over: 1st C. E Clarke, St. Cloud, Minn.; 2nd, North Dakota Agricultural College, 3rd, C. E. Clarke.

Steer or heifer one year and under two 1st, North Dakota Agricultural College; 2nd, C. E. Clark; 3rd, T. H. Canfield, Lake Park, Minn.

Steer or heifer under 1 year: 1st, T. H. Canfield; 2nd, C. E. Clarke; 3rd, N. D. Agricultural College.

Herd: North Dakota Agricultural College. Champion, C. E. Clarke; Reserve T. H. Canfield.

Grades or Cross Breds

Steer or heifer two years or over: 1st, C. E. Clarke, 2nd, N. D. Agricultural College; 3rd, W. A. Harding, Winnebago, Minn.

Steer or heifer one year and over: 1st, T. H. Canfield, 2nd, T. H. Canfield; 3rd, W. H. Dinwoody, 3rd, W. A. Harding.

Steer or heifer under one year: 1st, C. E. Clarke; 2nd, T. H. Canfield.

Grade 3rd: T. H. Canfield.

Champion grade: C. E. Clarke, Reserve T. H. Canfield.

Grand Champion, C. E. Clarke, Reserve, C. E. Clarke.

The entries of the Minnesota College were not placed in competition for money prizes and for that reason their placing was not given, but they stood at the head of many of the classes in which they were shown.

The Sheep Awards

The sheep show in the single entry classes was large and possessed much merit. The Grand Champion prize for fat wether was awarded to the North Dakota Argicultural College, a pure bred Southdown lamb. This lamb is a remarkably good lamb. He has a form which is almost perfect from the mutton type standpoint and he is well covered with a firm flesh. The Reserve Grand Champion went also to the North Dakota Agricultural College on a grade Shropshire yearling wether.

The sheep exhibitors in the single entry classes were W. J. Boynton, Viola, Minn., Blancher Bros., Winnebago, Minn., W. Woodard, Bloomer, Wis., A. A. Arnold, Galesville, Wis., A. L. Layer, Lakeville, Minn., and the North Dakota Agricultural College.

The wards follow:

Sheep—(Single Entries)

Class 1—Purebreds

Wether or ewe, one year old and under two. First, A. A. Arnold, Galesville, Wis.; second, North Dakota Agricultural College; third, W. Woodward, Bloomer Wis., fourth, Blancher Bros., Winnebago, Minn.

Wether or ewe, one year: First, N. D. Agricultural College; second, W. Woodward; third W. J. Boynton, Viola, Minn.; fourth, W. Woodward.

Champion wether or ewe, all ages; N. D. Agricultural college; reserve W. Woodward

Pen, wethers or ewes, one year and under two: W. Woodward; A. A. Arnold.

Pen, wethers or ewes under one year; W. Woodward; second, W. J. Boynton.

Champion pen, all ages: W. Woodward; Reserve, W. Woodward.

Class 2—Grades and Crossbreds

Wether or ewe, one year and under two: First, N. D. Agricultural College; second, same; third, and fourth, Clarence Willson.

Wether or ewe under one year: First, J. C. Mills; second, A. D. Agricultural College; third, A. L. Sayers; fourth, N. D. Agricultural College.

Champion wether or ewe, all ages: N. D. Agricultural College; Reserve, J. C. Mills.

Pen wethers or ewes, one year and under two: First, W. Woodward; second, J. C. Mills.

Pen, same, under one year: N. D. Agricultural College; second, A. L. Sayers.

Grand championship, wether or ewe, all breeds or crosses: W. Woodward; reserve, W. Woodward.

Grand champion pen, all ages: N. D. Agricultural College; reserves, N. D. Agricultural College.

Special class, rams, all ages and breeds: First, Blancher Bros.; second, A. A. Arnold; third, W. Woodward; fourth, W. J. Boynton.

Swine

The competition in the single entry classes in the lard type of swine was conconfined to the entrees of the North Dakota Agricultural College and A. L. Sayer, Lakeville, Minn. The College showed a pen of pure bred Chester White barrows with which they won the championship for pen of barrows all weights. One of the barrows in this pen was also made Grand Champion of the show. Mr. Sayer showed grades and won championship for pen of grade

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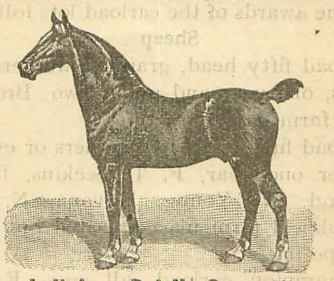

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barrows all weights. The exhibitors of bacon hogs was confined to T. H. Canfield, Lake Park, Minn. and the Brookfield Farm of St. Paul, Park, Minn. Mr. Canfield made a very few exhibits as usual and carried off most of the prizes:

The awards of the carload lots follow:

Sheep

Load fifty head, grainfed wethers or ewes, one year and under two: Brookfield farm; not competing.

Load fifty grain fed wethers or ewes, under one year, F. T. Seekins, first; second, W. Young, Havana, N. D. Brookfield farm placed second but not competing.

Champion carload, all ages, F. T. Seekins, Amery, Wis.; reserve, Brookfield farm.

Swine

Carload fifty head, barrows or sows, lard type, 200 to 350 lbs: First, James Allen, River Falls, Wis.; second, B. P. Whitney, Stanton, Minn.

Load fifty head, barrows or sows, bacon type, 160 to 225 lbs.; First, Burtman Bros., Lester Prairie; second, Brookfield farm.

Cattle

In the class of fifteen steers three years old and under four, the Brookfield farm exhibit was placed first, and awarded the ribbon, but as it was not entered for competition the money prize was given to G. M. Watson, Caledonia, Minn. The Merchants hotel trophy for carload of grain fed steers all ages was awarded to G. M. Watson, Brookfield farm not competing. The third prize in the first mentioned class went to W. A. Harding.

Carload lot, grain fed steers or heifers two years and under three: First, L. Lamberson, Warren; Second, W. A. Harding, Winnebago; third, H. Haasken, Cologne, Minn.

Same class, one year and under two, first, W. Woodward & Son.

Champion carload, all ages, G. M. Watson; Brookfield farm not competing for prize money, as mentioned above. Reserve, G. M. Watson.

Carload grass fed steers or heifers, any age: First, T. T. Tunheim, Klep, Minn.

Stockers and Feeders

Carload twenty head native or range steers or heifers, two years and under three: First, T. T. Tunheim, Klep; second, Daulton & Howell, Frederick, S. D.

Same, one year and under two: First, T. T. Tunheim.

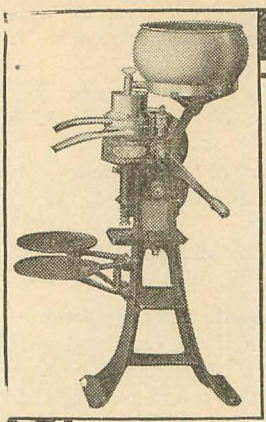
Champion carload, all ages, T. T. Tunheim; reserve, T. T . Tunheim.

DEVELOPING THE DAIRY INDUSTRY

There is need for the development of more dairy farming in North Dakota. Not enough dairy products are produced to supply the wauts of our state; especially is this true with regard to milk and good dairy butter in our larger towns. Why should we be shipping into the state dairy products, and why should we be paying such exhorbitant prices for milk, and then not be able to secure the necessary supply for home use?

In order to develop the dairying proposition in this state two things are necessary,—greater attention given to the matter by the farmers of the state, and greater care in the selection of animals, which shall be free from diseases, especially tuberculosis.

What can be done to promote the dairy industry of the state and at the same time help the farmers? We offer the following suggestion: Many tuberculous animals have been coming into the state, according to recent reports, during the past few years and North Dakota will soon find it necessary to eradicate this disease, as is now being done in many of the Eastern states.



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The yearlings include "Frostly Morning" which at five months old won three firsts and two championship prizes.

Local and Long Distance telephone.

DAZEY, N. D.

If the state attempts to pay in part for the animals destroyed, as some states do, we shall find it a burden. A better method, it seems to the writer, would be for the state to encourage dairying in the following manner, providing there is nothing in the Constitution which would prevent this:

Exempt from taxation every cow used exclusively for dairying purposes, providing the farmer can show a certificate of freedom from tuberculosis, properly vouched for by a recognized veterinarian. This would encourage the farmers to increase the number of cows used for dairying purposes, and would at the same time encourage them to eliminate all tuberculous animals from their herd; and I do not know of a feature which would do more to promote diversified agriculture in the state than would this very step. What do our readers think of this matter?

GROWING CORN ONE HUNDRED YEARS FROM TODAY

By Geo. W. Patterson, Ames, Iowa

(The following is one of the prize essays at the recent National Corn Show.—Editor.)

Judging from the many uses of corn and the systematic and fruitful attempts towards its improvement in recent years we can expect many changes to take place within the next century. There are at the present time, besides the ordinary uses for feed, about 100 products made from corn. Perhaps the number of uses will not increase very much but as the people come to appreciate the value of these by-products more there will be a much greater demand for them.

Corn can be more cheaply produced than the majority of cereals. The fact that types of corn can be developed by selection and breeding, that they will, in a large measure, take the place of other grains will result in but one thing, an increase in production. The average yield of corn in the U. S. today is about twenty-nine bushels per acre. Experiments have shown that an acre of ground can be made to produce one hundred bushels or more. It is safe to say that in one hundred years from now the farmers in the great corn producing states will be raising on an average ninety-five to one hundred bushels to every acre of corn land.

Since the principles of plant and animal breeding are rapidly becoming so generally understood we may expect that breeds of corn will be developed with as well defined characteristics as are those of live stock today. Different localities will have different uses for the plant. As a result, growers will develop types to meet these demands. In some places there will be a type that is especially high in protein content, while in others types containing much starch will be evolved. Were we living one-hundred years hence we would see that utility and practical value would be the most important motive for corn breeding. Large and well matured ears, while being more common, will be desired as much as they are at the present time.

Many people of today are farming not because they understand it and like it but because they are unable to do anything else. It will be different in a century from now. Agriculture will be recognized as a great science by every one. The man who makes a success of it will out of necessity understand more of this industry than most of us do now. The problem of keeping the soil in a constant state of fertility is one which will require more thought and work than it does today. Corn growers will be practicing well regulated systems of rotation on farms much smaller in size. It has been estimated that the annual loss of manure thru present methods of management amount to over $83 on every farm. In one hundred years from today this loss will not by any means be a common occurrence among corn growers. The practice of feeding the crop to stock on the farm will be common. While cornstalks today are not used to any extent, in one hundred years from now they will all be utilized as stock food.

While it is true that any increase in production will in a large measure be due to selection, breeding and cultivation yet it is equally true that much of this increase will be the result of drainage. The wet clayey spots, now common in corn growing states, will out of necessity be changen into fertile fields. The corn crop forms the main basis of American farming today and will continue to do so for the next century. When one thinks of the many trainloads of stock that are daily received at Chicago and other markets he cannot but appreciate the importance of the corn crop. Furthermore, not only are large amounts exported but much of it is used at home in the form of by-products. What we Americans would do without our corn is a hard question to answer. In one hundred years it wil lbe even harder to answer than it is now.

With the gradual decrease in the size of the farms there will be a very marked change in the machinery used in corn production. The object in using corn growing machinery will always be to kill weeds and to keep the soil in the best physical condition. This will be accomplished mainly by the use of single row surface cultivators. The question will not be how much a man can cultivate but how well he can do it. Each field of corn will be much smaller and will receive much better care than fields of today do. It is evident that corn harvesting machinery will change a great deal, especially that relating to the gathering and preservation of corn fodder and stover. One hundred years from today corn harvesting machines will not be in practical use. They will be unnecessary upon the small farms.

The leading corn producing countries at the present time are the United States, Argentine, Austria Hungary, Mexico, Italy, Egypt, Russia and Canada. The greatest corn raising states in our own country are situated in the middle west and may be named as fol-

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Even the ***best*** *cows can't make big profits for the dairyman who* ***persists*** *in using pans or crocks or a poor skimming separator. Cream is* ***cash,*** *and if yours is just an "average" herd, then how much more necessary to skim out* ***every*** *drop! Why not* ***help*** *the cows boost* ***your profits*** *by skimming their milk with a reliable*

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lows: Illinois, Iowa, Indiana, Eastern Kansas, Eastern Nebraska, Western Ohio and Texas. In one hundred years hence corn will, no doubt, be grown very extensively in other parts of the United States yet those states lying in the Middle West will always be leading ones in corn production.

Today the United States produces over three-fourths of the world's corn crop but what can be said of the future? While the area given over to corn production in the United States may be capable of some expansion yet practically all that can be successfully devoted to the raising of corn is being used at the present time. The necessary increase in production in the future must come thru more careful methods of culture. In many countries the value of corn has not been fully recognized. The area given over to corn production in such cases is capable of great expansion. The production can also be increased by improved methods. If we wish to keep the lead one hundred years from today in the production of corn we must raise more corn thru improved methods of culture.

HEAVY HORSE MANAGEMENT

The advice given below is so sound and practical that we commend it to those of our readers who contemplate starting into the breeding of heavy horses:

"My remarks on the management of heavy horses are made from a farmer and breader s standpoint. If one is ambitious to start breeding and showing it is an ob ious necessity to start with a good stamp of mare of the long, low, short-legged, weighty class, with big, open, sound feet, prefer ably of sound, weighty ancestry. Unless an exceptionally good judge, it is not well for the ordinary farmer to o erdo himself with horses much more than is required for the ordinary work of the farm, a moderate number of the right sort paying much better than a lot of unsaltable moderate animals. There is no getting away from the fact that the farmer who has a few useful mares, and exercises care and discri nination in the mating of them, with ordinary luck will make the business pay, the demand for horses of the ri ht character being pra tically unli ited. Unless in foal mares are in regular work (which if not of an exhausting nature is rather bene ficial than otherwise, the maternal function is always more naturally and healthil p rformed by workers than those indolent, care of course b ing taken n t to o erdo), they are better out, with a daily allowance of gr in and a little hay. W ile on the subject of food I should li e to re ind e ery owner of horses, young and old, of the great risk in changing from cut hay on to straw suddenly, from which cause I have known several valuable horses to die, thru stoppage in the bowels , and I believe this practice to be commoner than it should be. When it is desired to use cut straw to a horse accustomed to hay, it is better to mix a small quantity of the straw portion with the other for the first few feeds, gradually increasing the straw and reducing the hay until the stomach is accustomed to the change. When the time for a mare to foal is approaching, a little crushed linseed mixed with her chop is beneficial in keeping the bowels in a healthy condition. As the usual signs of the near approach of foaling show themselves in the flushing of the bag, etc., do not neglect to keep a close observation on the mare day and night, as nothing is more mortifying than to find a dead foal in its sheet on getting up in the morning, with the knowledge that the loss might have been avoided.

With young or excitable mares it is often best after foaling, to leave them alone with the foal until a proper understanding between the two is established. They will frequently allow the foal to suck sooner when left alone than when irritated by the attentions of attendants. Of course, proper judgment requires to be exercised as to the best way to act in different cases. If the mare foals indoors, she should have a big box, or there is risk of her putting her foot on the sleeping foal in turning round in a cramped place. The said box should be clean, and walls recently limewashed, bedded with short litter, and well ventilated without being draughty. The mare and foal should be turned out if the weather is fa orable, for a few hours as soon as the foal is strong enough on its legs. The sunsh ine is a first class stimulant to growth and strength. Ha ing escaped that nightmare of horse breeders, na el ill, joint e il (and the formalin solution is valuable right here), and the foal being three months old, it will begin to take a handful or two of crushed oats and bran, if gi en to it, which slight expense will be well repaid in the faster growth and more blooming appearance of the foal when the colder nights commence.

Foals that have been taught to eat grain while on the mare do not sink so much the following winter as those which have not, pro iding it is continued, which is the proper course of treatment. It is no doubt true of horses as of other animals that the first year is the most important of their life. Du ing the first year the feet will not require much attention, except in cases where they are turned in or out, when the edges of the hoof will require to be kept rasped down at the sides, according to which way the feet are inclined. If the feet are too much turned in, they should be kept well down inside, and the opposite if turned out. As the foot is vitally important, it behooves the owners of young horses to watch and safeguard the de elopment of good feet, the possession of which makes so much difference to the value. Those people who handle and lead their foals before weaning will reap the benefit of doing so later on when they require handling for feet paring, castration, or other causes.

With regard to the time for breaking I am personally fond of doing it at two years old with animals well grown, in fair condition, as their strength not being matured at that age enables the operation to be effected with greater ease and less risk to all parties concerned, while not at all prejudicial to the growth and development of the horse, providing the hours and nature of the work are suitable to its strength. Moreover, the value of a two year old is increased when it is quiet at work. I think many heavy horses are insufficiently broken in to start by the absence of a good

See "Personal" on page 1.

Clean Skimming Means Good Living

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Wide awake farmers want the cream separator that skims the cleanest. It means more profit—better living. That separator is the Sharples Dairy Tubular—the separator that's different.

Sharples Dairy Tubulars have twice the skimming force of any other

separators—skim twice as clean.

Prof. J. L. Thomas, instructor in dairying at the agricultural college of one of the greatest states in the Union, says: "I have just completed a test of your separator. The skimming is the closest I have ever seen—just a trace of fat. I believe the loss to be no greater than one thousandth of one per cent."

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mouth, which is almost as important in heavy horses as light. Plenty of otherwise good horses can only with difficulty be got to back a load, owing to indifference and neglect in making a good mouth when broken in. Hard and one-sided mouths are also caused by constantly leading a newly broken animal, instead of frequently driving in reins.

Every owner of horses should always keep by him a good supply of raw linseed oil, good colic drinks, and some kind of disinfectant fluid, also some bandages. For ordinary sprains there is nothing to come up to constant efficient fomenting with hot water.

NORTH DAKOTA PERCHERON BREEDERS BUY LIBERALLY AT THE A. G. MCMILLAN SALE

E. O. Ellison of LaMoure one of the leading Percheron horse breeders of the state bought liberally at the sale held by A. G. McMillian one of the best breeders of Percherons in this country at Sioux City, Ia, Nov. 19 and 20.

Mr. Ellison bought the second highest priced stallon sold at the sale. It is gratifying to know that our North Dakota breeders are buying the best they can find in the way of good blood to improve their stock.

The purchases included the following:

Stallions

Charlatan 50652 black foaled May 1, 1095.

Superbus 51345 black foaled May 11, 1906.

Gerardeau 49234 black foaled April 21, 1906.

Mares

Eloise 20985, dark iron gray, foaled May 6th, 1897.

Black Pearl 50870 black foaled May 5, 1904.

Odelle 51331 black foaled May 26, 1906.

Magenta 51330, Sorrel foaled, April 1, 1906.

Rosaline 51334 black grey foaled May 1, 1906.

Senorita 51344 black foaled May 11, 1906.

In addition to the purchases made by Mr. Ellison we note that E. F. Carpenter of Hope bought the horse Cesar 43252.

WINTER FEEDING

The season has come when the care of the work horses on our farms is apt to be neglected. Many will work some of their teams only a certain intervals and the remaining time they will be idle and standing in the barn. In cases of this kind there is danger of feeding too much grain. The grain should be adjusted to the amount of work done. During the days when the horses are working they should receive the usual amount of grain but when idle the amount should be reduced at least one half. This method of feeding will not only save grain but the horses will show better thrift. Heavy feeding when idle is the cause of azoturea. an ailment so common among horses on our farms where they are not worked with any degree of regularity.

The Texas Farmer observes: "The average production of butter per cow in the United States is only 133 pounds per year. In 1845 the average was only 83 pounds. There has been a great increase. The limit has not been reached. There should be another increase."

Dr. Kobler, of Georgetown University, Washington, D. C, says that one-fourth of the children born in the United States die before they are a year old. He has found in his extensive practice that the greater per cent of those who die between the ages of 4 and 10 months are victims of improper methods of artificial feeding. Infantile diarrhoea, caused by impure milk, is the cause of most of these deaths. Since the passage of the pure milk law in the District of Columbia the total deaths have been reduced over 8 per cent.

When the pasture dries up so there is but little feed thereon for the stock, it is a good time to give the bare places a top dressing of manure. This should be done, however, only when the soil is thin. Before making the application, scatter a little grass seed over the spot, then apply the manure.

The report comes from Vermont that many of the farms which were abandoned several years ago are now gaining in fertility. It is no wonder that they are, either. Vermont has a cow for every one of her inhabitants and wherever one of these animals is allowed to graze, the soil is sure to be improved. The farmer with a worn-out soil needs only to turn his attention to dairying to solve the fertility question.

See "Personal" on page 1.

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Swift's Soluble Blood Flour

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(87 per cent Protein)

Swift's Soluble Blood Flour costs the feeder less than 4 cents per pound and will do more than any other feed in keeping his calves bright and healthy and growing right along. Ask for our Booklet, "Little Talks to Stockmen," which tells all about it.

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PROFIT IN LIVE STOCK

The Advantages of Stockraising on the General Farm

By Hiram H. Shepard

There has never been a time perhaps when livestock of all kinds was in greater demand than it is today. Indications clearly point that the present condition is not an unhealthy one, but that demand for farm stock and good prices will continue, or even increase, for years to come. They are more likely to increase than to decrease. The demand for good horses, in spite of the general utility of electricity, gas ,and steam powers, is stadily increasing and horses and mules in ten years will probably be higher than they are now. The ever increasing demand for meats will assure ready sale and a profitable market for cattle, hogs, and sheep. Also, the increasing demand for clothing and other innumerable articles into which leather and wool are manufactured will tend to maintain and increase the demand for cattle and sheep.

With the rapid advances in scientific farming methods, there has come a universal desire for pure bred stock of all kinds. The demand now for blooded stock as well as good animals of high grading is so strong that not half the orders can be filled It seems at present impossible for farmers to breed them fast enough, and there is no doubt but that the demand will exceed the supply for many years. There is large room and great opportunities for a very large number of farmers to breed pure-bred stock exclusively. In this connection also it is not out of place to state that the young folks, our boys and girls, receiving general and scientific instruction in agricultural methods in our public schools and colleges will find in the growing and handling of good farm stock more pleasure and profit in general farm work than did the young folks of a generation ago, hence a partial solving of the problem of "how to keep the boys and girls on the farm." It goes without saying that this will raise the standard of farm life and rural intelligence and culture, which at present is already high.

The advantages of breeding and keeping live stock as a heavy branch of general farming are many. It saves time and labor of marketing thru feeding grains and hay instead of selling them in the raw state; it allows the farmer to make a margin of profit on the feeds, and to utilize feeds that could not be profitably marketed, and also to make an additional profit on high grade stock sold for breeding purposes.

But greater than all these, the growing of live stock on the general farm to as great extent as is consistent with the size of the place enables the farmer to utilize to the fullest extent all of the farm by-products, and in doing this lies in a great measure the profit and success of any kind of farming. It is a well known fact that on even a small farm a few calves, colts, and lambs can be raised each year with comparatively no extra cost owing to the fact that they will consume and thrive on small grass plots, other unavailable pastures for larger animals, and pick up odds and ends of feeds which could not be utilized in any other way. A larger number of young animals can likewise be kept at small cost on the larger farm. The utilization of all by-products is good business method in any industry.

The by-products which are produced on the general farm, and which would waste where a variety of animals are not kept, are many. Notably among the number are stubble and corn stalk pastures, orchard pasture when fallen and poor grade fruit is on the ground, skim-milk for feeding pigs, unsalable straw and corn stover, and last but not least, the extra amount of manure to be returned to the soil, which is the very life and backbone of soil improvement and maintenance. With a sufficiet variety of animals everything grown upon the farm can be fed and made to yield marketable product, and besides a large portion of it is retained in the form of manure to be returned to and enrich the land. The system gives a maximum amount of gain with a minimum amount of waste, or matter removed from the soil. It insures chances for permanent and continued success, and gives the farmer wider scope for regular intelligent work.

To become highly successful in breeding and growing farm animals one must love the animals he works with. He must have an inborn or acquired sympathy for them and ever be on the alert to make them comfortable and happy with feed, shelter and other necessary conditions for healthy growth and perfect maturity. The man who is not content day or night till he knows that his farm stock is cared for in the best manner possible is sure to succeed with them. Even when all things are right he will light the lantern after supper on winter evenings and go to the barn and other buildings to see the animals and know that they are comfortable for the night. He will not do this because he suspects neglect in some line, but because his heart is with them, because he cannot help doing it. Such a man is a good stockman.

The growing of livestock on the general farm requires good judgment and general intelligence on the part of the farmer. The animals require good shelter, proper amounts of the right kinds of nutritious feeds, and their cure. To make profitable gains he should thoroly understand feeds with their composition and nutritive values, and balanced rations. He should know what feeds will produce the highest returns with each kind of animals kept, and know what feeds to buy in order to get the best results from the feeds raised on his own farm. With judicious management and correct knowledge of farm stock and feeds the general farmer can buy feeds and use them with profit besides adding extra amounts of manure to his land, which represents a part of the net gain. It is better farm practicce to buy feeds than to sell them, and the farmer who keeps much live stock is able to do this to advantage.

With the growing demand for pure bred animals of amost all kinds, the general farmer can make extra money on the same amount of land by keeping pure-bred animals only and selling a part of them for breeding purposes. Of course there is some extra expense in doing this, but the returns will justify the extra expense and the pleasure in growing them is compensation in itself. It is a pleasure to keep animals that one is not ashamed of and of which others are always eager to buy. When one has established a reputation for only a short time, and breeds stock of general utility he will soon find more buyers than he can supply.

Horses, cattle, sheep and hogs have their special merits, but the general farmer should breed and grow all of them, with perhaps some one kind of animal, his especial favorite, as a leader.

It goes without saying that horses are valuable and absolutelv essential farm animals. Every farmer should keep a few mares to raise colts for his own future needs, and if possible some for sale.. The horse is a noble animal and one which every member of the family loves. Besides the steady, high market value of colts and good young horses, the mares which raise them can be used for general farm work almost as well as horses of the opposite sex. The colts require some feed and care, yet a good colt can be sold at weaning time for from $50 to $100. In this there is no cost of feed, only the cost of the foal, a little trouble with the colt, and some extra feed and care of the mare. A $50 colt or mule on the average will cost not more than $25, which is 100 per cent profit for the trouble of growing it. The colt or mule from weaning time till it is mature and ready for service or sale is an animal cheaply kept, and will take on more proportionate gain per year than perhaps any other farm animal. Age alone up to maturity represents added cash value. It is wise policy to always have some young horses coming on. They can be raised with profit on almost all farms in any part of the country.

The breeding and raising of cattle on the general farm may be made profitable. The kinds to be kept will depend upon the classes and amount of feeds grown and the markets for their products. Some farmers will find it more profitable to keep dairy cows, while others, influenced by different conditions, will find the beef type the more profitable. Besides the profits of cattle products, the right handling of the animals will result in maintaining, or even increasing, the fertility of the land upon which they are kept. No more or better manure can be made than by feeding and stabling cattle, whether they be of the beef or dairy types. By keeping an extra number and buying some feed, enough manure can be produced annually to fertilize well several acres of ground, thereby making conditions possible for high crop yields.

Sheep should be kept on every farm where there is much available pasture land. This is especially recommended on hilly farms, for sheep thrive best where they can have the benefit of both hills and valleys for forage. They crop the grass close in pastures, but also are great weed exterminators, and fertilize land richly and evenly with their droppings. As with horses, the parents are profitable while rearing the young. The annual coat of wool always commands a good price, and at present mutton is one of the most profitable meats to produce. Sheep will produce flesh and wool on waste substances that can neither be marketed nor eaten by any other farm animals. A flock of sheep fits in nicely in general farm economy and the utilization of farm by-products.

There never was a time when hogs were in greater, steady edmand than has been the case for the last two or three years. Indications point that the demand and prices, either for breeding or market meat purposes will not wane in the near future. Experiment stations and farmers in general have found that hogs can be grown, and demand for the highest gains, a variety of feeds. The corn belt in the future will not hold exclusive right on profitable hog culture, but they will be extensively grown in sections where corn is a minor crop. The hog commends itself to the general farmer on account of its quick maturing and prolific qualities. A sow will produce two litters of pigs of a dozen each per year, and the farmer can turn his money over several times with hogs while he is waiting for other animals to mature. Hogs require a little more care than some other animals, but the man who likes to work with them and is willing to study their needs and give them regular care will find them a most profitable adjunct to general farming.—Farmer's Voice.

GROWING WINTER PIGS

There seems to be a great diversity of opinion among swine growers as to the profitableness of growing winter pigs, which depends entirely upon the circumstances in the case, and to say that it always pays to grow winter pigs is quite as much of a fallacy as to say that it never pays. There are times and conditions under which it pays to grow them and other times and conditions under which it does not, and the individual farmer, guided perhaps by the few general suggestions here given, must himself determine whether this particular year in his circumstances he can make money on winter pigs.

It will pay one to grow winter pigs, if he has sows of the right type and age; if he has superabundant barn room; if he has unmarketable grains; or feeds of any kind that would otherwise go unused, or be used to only slight advantage by other stock; and, last but not least, if the price for pork is reasonably high. In short, circumstances must be such that the cost of growing, which is bound to be greater in winter than in summer, will be reduced to an absolute minimum if profits are to be reaped.

Mature sows are capable of raising two litters of good size and strength each year, but those who have attempted to get two litters from yearling sows have never met with very satisfactory results. In the second

See "Personal" on page 1.

Furs HERMAN REEL, 125-128 W. Water St., Milwaukee, Wis. Send 25c for trial size "Betterbait." Best bait in the world for catching Mink. Send for price list of fur coats and Raw Furs. Bait

In Buying Stock Food

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GRAND FORKS, - - - - NORTH DAKOTA

litter from a young sow the pigs are usually small in size, weak or uneven, and on the whole decidedly unprofitable.

The quantity of feed necessary for maintaining the sow the year round is only very slightly increased when she has two litters, so one gets the added litter at almost no extra cost for feed.

Feeds for the winter pigs must necessarily be more expensive than for summer pigs; more feed is required to produce a pound of pork in winter than in summer, since a greater amount has to be utilized in merely keeping the body warm. If the price of pork remains the same, a dollar invested in feed stuffs for summer grown hogs will return a greater profit than a dollar thus invested for winter grown hogs. This, however, is not saying that there is no profit in feeding winter pigs, simply that there is less profit.

It often happens that there is discolored or bin-burnt barley upon the farm, or corn that does not sell well. More money will be realized from this by feeding it to winter pigs than by attempting to dispose of it upon the market. Or if, as was the case a few years ago, the price of pork is high and that for grains low, it pays better to grow enough pigs to utilize the grain than to sell it direct.

Fall pigs can utilize milk to greater advantage than can any of the other stock upon the farm, for the other stock can just as well be fed coarser, cheaper feed stuffs. So the dairy farmer who has plenty of milk, and at the same time warm quarters for swine, can make good money on winter pigs.

On a great many farms a large number of steers or dairy cattle are fed on shock or lightly eared fodder corn or coarse corn meal. A great deal of edible corn is to be found in the droppings of these animals, and winter pigs will do a great deal better in finding and utilizing this feed than will the larger, older hogs.

Warm quarters must always be provided for winter pigs, otherwise they will either die from exposure, or use all the nutrients in the feed to keep warm, instead of to thrive and grow on. A yard or pen with a straw nest may do very well for hogs, but it does not furnish sufficient protection for young pigs.

The matter simply reduces itself to this: In order to make winter pig growing pay, summer conditions both as to cheapness of feed and warm, comfortable surroundings must be approached just as nearly as possible.

See "Personal" on page 1.

WILLOW GLEN SHORTHORNS AND POLAND CHINAS.

The home of the Sweepstake's sow at Interstate Fair, Fargo, N. D., 1907. Herd headed by Chief Perf. 3rd sired by Chief Perf 2nd the greatest hog the breed has produced We have for sale choice spring pigs of both sexes by four different boars. Can furnish pigs not related. Have a four year old herd bull a grand son of Nominee and a eight-months old bull calf for sale. Prices reasonable, quality considered. Address

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A Few Pigs and Occasionally a Bull Calf For Sale.

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THE PRAIRIE KING HERD OF MOST POPULAR BRED POLAND CHINAS

Present offering consists of a few April farrow boars, and open gilts. We are booking orders for bred gilts to be bred to a boar out of our 1st Prize and Champion sow at Minnesota State Fair this year.

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LAKE LILLIAN HERD OF POLAND CHINAS

April, May, June and July Pigs for sale; also two old boars, one and three years old.

My herd is selected from State and Interstate Fair Prize Winners. Prices right. Call or write to

G. F. FISCHER,
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FOR SALE

Duroc-Jersey Boars by Tom Quirk 58823 out of Belle's Echo 33423 sows. Will sell cheap if taken at once. Write or call. Can ship on N. P. or G. N. R. R.

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2½ mi. E. and 3½ mi. N. of Buffalo and 5 mi. S. of Ayr.

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PLEASANT GROVE ERD

Shorthorn Cattle, Poland China Swine

We are making a specialty this season of shipping spring pigs. By shipping when not too large the express bill is lighter. We can supply boars and sows not related. Write us for descriptions and prices.

WINN BROTHERS,
Redwood Falls, Minn.

GREENVIEW STOCK FARM

Has 100 Poland China young pigs, sired by Rockwell Chief, Corwin U. S. 2nd and Prince Corwin. Sows strongly bred of Tecumseh blood. Orders booked now for fall delivery.

Pure Scotch and Scotch Cross Shorthorns, Young and old stock for sale. Call or write if you want North Dakota bred Poland Chinas or Shorthorns.

E. C. BUTLER,
Cooperstown, N. D.

POLAND CHINAS

Choice March and April pigs of the large heavy boned type with plenty of quality also two great fall boars, one a prize winner sired by Klevers Perfection 112297 and Honored Guest 2d 117143. Prices right

W. R. ADAMS
R. No. 1 Mankato, Minn.

Poultry Department

By MRS. B. F. WILCOXON.

POULTRY NOTES

The best advice which can be given a new beginner is to go slow at first, to learn your business at the least possible cost in mistakes, and when you feel assured that it is safe to do so, push the business for all that is in it.

The business of raising fowls for the market as distinct from producing eggs for market cannot be very distinctly separated, because the egg specialist must necessarily have surplus stock to sell and the market fowl producer and feeder will not be without eggs. The idea is to cater to your best market, and let it decide which branch shall be your specialty.

It does not take much of a mathematician to figure out that the best incubators and brooders are the cheapest in the end. But not a few persons, making the first move toward installing a poultry plant large or small, do not take the time to do much figuring. They do it at some future time, with regrets for former hasty action. When will it become universally accepted by poultry raisers that it is the poorest kind of economy to purchase anything that is off "color"? A good incubator and breeder to commence with and comfortable quarters in which to house them are absolutely necessary if one would obtain the best results.

At no time of the year can any one who is desirous of purchasing new blood or additions to his flock purchase so cheaply as now. Large breeders have at this time a considerable surplus of suitable birds, which must be disposed of to make room for the young stock coming on that must be well housed before the severe weather sets in, and a breader who would willingly accept three dollars now for a bird would ask double that figure for one no better two months hence, simply because he has cleared out all or nearly all, he had for disposal, and suitable birds rise in the estimation of their owners as they grow scarce.

These cold, snappy mornings is when your fowls would enjoy a good feed of green cut bone and in return would pay a liberal dividend in eggs worth 25 cents or more per dozen. Animal food is absolutely essential in correct winter feeding, and in green cut bone an ideal feed is found, one that contains, in the nearest correct proportions, the component parts of an egg. With a bone cutter, such as are on the market to suit the individual demands, poultrymen have an easy and cheap way of converting pennies into dollars.

The results of overcrowding are, or ought to be, sufficient to prevent any right-thinking person from practicing and propagating the abuse. In the first place, it is an act of cruelty to the fowls, and, whether this over-crowding takes place in the hen house or in the runs, the results are equally disastrous, as birds kept in such unnatural conditions cannot be other than diseased and neither they nor their eggs are fit for consumption; and yet when we come to think of it, who can say how many thousands of such eggs find their way into the markets every year?

Let every person who attempts poultry keeping go into the business with the object of making a profit. Poultry for pleasure may suit some, but it soon becomes monotonous. The majority of poultrymen and farmers aim to secure profit. Do not economize at a loss for there is such a practice as "extravagant economy."

Never feed sloppy mashes. Meat and salt can be added to this mixture. A proper amount of salt aids in the digestion of the fod. Salt keeps the fowls strong and healthy. Regularity in feeding. Have regular hours for this work. Don't get into carefess "slip-shod" habits of management which result in nothing but failure.

Keep the drinking vessels clean and sweet and see that the fowls have a generous supply of clean water at all times. Water becomes stagnant and unhealthy very soon and is the source of many of the diseases that attack the fowls and chicks.

Have you considered the value of ducks? At the age of ten weeks the Imperial Pekin duck will weigh about five pounds Water, except for drinking is not essential and the houses are easily constructed.

If you will favor us with a remittance for your subscription, either 50 cents for one year, or $1.00 for three years, we will give you absolutely free a year's subscription to FARM & HOME, a semi-monthly farm paper of the highest grade. Do it now.

Coal ashes are as good as anything that can be had to dust over the dropping boards. They do not spoil the droppings for fertilizer nor bleach the shanks of the fowls as wood ashes do.

The production of hens that will produce a large number of eggs is a very profitable business and poultrymen cannot do better than to begin establishing strains of this kind.

Remember that with poultry, as with yourself, too close confinement and hearty eating after active outdoor exercise, indigestion is the result, with attendant results.

Grit is the chickens teeth. Good mastication means good digestion; good digestion means perfection assimilation of food. All poultry, to thrive, must have this.

To put the hens in laying condition is the correct aim of every poultry raiser during the winter months, when a full egg basket means so much.

Vigor in a flock means plenty of eggs, healthy birds, wholesome meat for the table and less work in the care and management of the flock.

Many a brood of fine chicks has been sacrificed to neglect. Cleanliness and promptness are cardinal virtues in the poultry yard.

Dry feeding is becoming more or less popular, but one feed a day that consists of boiled grains and vegetables is all right

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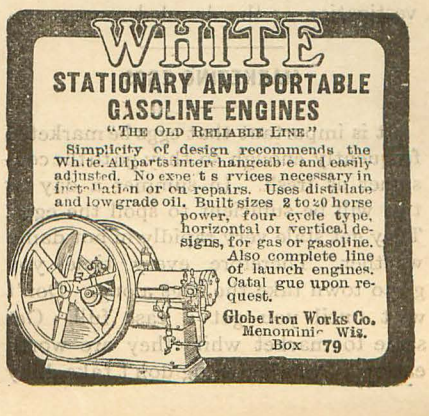
Breed only from perfect fowls. The defective bird is apt to transmit its faults.

Exercise is a better stimulant for laying hens than heat producing condiments.

A dark comb is not a good indicator. Something is the matter.



It is a good plan to sell the young cockerels not wanted for breeders at as an early age as possible. It is economy to do so. One can work them off at as good a figure as if they were kept a month or two longer. If retained a month or two longer the expense bill for feed will far more than counterbalance the additional price received.

Feathers are very valuable and if they are prepared the right way they will bring quite a sum of money. Most poultrymen regard feathers worthless and then throw them away. They do not know that they are throwing one-ninth of their profits. If they only knew this they would save all of the feathers. The markets are always open for feathers, and the people who save them are the ones who make the most profit. All the money that the poultrymen would get from the market for his feathers would be thrown away, otherwise it does not take much more labor to prepare the feathers for market than it does to throw them away. In the course of a few years all poultrymen who send chickens to market will save all their feathers and this will make the hen much more valuable.

The dreaded malady commonly known as "going light" is what delivers in hen lore term, tuberculosis. Tuberculosis is very deadly and multiplies rapidly where fowls are housed in damp rooms, cold basements. It takes but a short time for tuberculosis to get its fangs deeply rooted in a fowl's lungs. The only cure is prevention. Prevention means fresh air, sunlight and clean quarters where oders never meet one on entering the door. If cows can convey tuberculosis thru their milk to consumers of it, why not the hen? Of course the general farm hen whose cover is the blue canopy of heaven and whose shelter is the darbed-wire fence does not have tuberculosis; the fresh air is a repellant; and besides; she needs her strength to fight the daily batles that confront her forages for waste grains. Tuberculosis is not an every day or every flock disease but there is plenty of it about nevertheless. It should have as thoro investigation as the dreaded roup.

MARKETING EGGS

It is important that eggs be marketed frequently enough so they go to the consumer as fresh. In summer a day or two will be sufficient to spoil the eggs. They get stale very rapidly in hot damp weather. Therefore every time you go to town take the eggs along. Don't wait until you get a case full. Get same to market while they are worth eating. Another thing don't take dirty eggs to market. If your nests are clean, the eggs will be clean, except those that are dropped under the roosts or elsewhere and rolled in filth. You wouldn't buy a sack of flour that was dirty in appearance would you? The sack just fell into some dirt, that's all. The buyer of eggs doesn't want filthy looking eggs. Clean inside, Yes, maybe, tho eggs absorb bad oders and flavors thru the shell about as readily as a sack of flour would. But appearance has much to do with our appetites, we pay more for a clean article than we do for a dirty one. So if you will not clean the eggs eat them yourself—nobody else wants to. Another thing the markets want eggs of uniform size, large white ones preferred in some markets and brown accepted in others. But so long as eggs are sold by the dozen the consumer wants a big egg, a good big egg with a solid shell should bring more than a little egg, or thin, breakable shells dirty or odd-sized eggs. Reason with your egg merchant and make him pay more for a good salable, sort of eggs. When he sells to the city commission house he gets paid for the kind he sends in. Then he should pay you for the quality of eggs you bring in.

DEACON BLACK'S WARNING

"I dreamed I was a chicken,"
Said good old deacon Black,
"With a comb upon my head
And feathers on my back.

"I thought I was roostin'
In the top of an oak tree.
My comb was hard as a brick
And I could hardly see.

"The cold north wind went whistling by
As I gripped an icy limb,
And the farmer said as he passed by,
'Fresh air is good for him.'

"I flew down in the morning
And was searching for something to eat.
The farmer said. 'He's a rustler,
But I think he'll lose his feet!'

"I done without my breakfast—
Didn't get a bite that day.
'My chickens are eatin' their heads off.'
I heard the farmer say.

"I peeped into a horse trough,
The corn looked good and sweet,
But they pelted me with cobs and stones
And I hastened to retreat.

"Then I woke up and you bet I was glad
To find it was a dream,
And now I've got me a new henhouse—
The result of that 'ar dream."

—Poultry Item.

POULTRY RAISING IN NORTH DAKOTA

Few realize that the poultry products of the United States annually equal in value the wheat crop. As yet North Dakota has paid but slight attention to this resource, which would add millions to the wealth of the state if generally developed. In fact large quantities of eggs are imported into the state. The number of inquiries received at the Agricultural College shows that the care and management of poultry are not commonly understood in our state. To give information and practical suggestions to persons wishing to take up poultry raising. The Agricultural College Experiment Station has for two years been conducting experiments on poultry raising under North Dakota conditions. The results of these experiments are set forth in a bulletin just issued for free distribution. The work was done by Prof. J. H. Shepperd and Mr. O. W. Dynes.

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Save you time and worry, because they do not need watching. Famous **Patent Wafer Regulator** works automatically, keeps absolutely even temperature. 15 years' successful record. New Free Poultry Book tells why beginners and experienced poultry raisers alike find the Successful the simplest, easiest to operate, gets largest hatches. Also shows illustrations of the finest strains of

POULTRY

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that my birds are bred for heavy egg production, as well as for the show room. A few fine cockerels for sale in all varieties, also one pair of old ferrets and rabbits of all colors. Please write, stating what you want to pay for good stock; I know that I can please you.

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All varieties of standardbred chickens, ducks, geese, turkeys, peafowls. Send 4 cts. for catalog. J. J. Brenner, Dept.11, Mankato,Minn.

All Leading Varieties Strictly Pure Bred CHICKENS, DUCKS, GEESE, TURKEYS, EGGS and FREE TRIAL INCUBATORS at right prices. DON'T BUY till you see what we offer. A. 1. References. Send 2 cts. for illus. catalogue. CHANTICLEER POULTRY FARM. Dept. 20 MANKATO, MINN.

COMMON SENSE ON POULTRY RAISING

Tells how I have succeeded in hatching and raising thousands of chickens every year. I have succeeded, so can you. This book is worth dollars to any interested in Poultry. It will be mailed to any address for 15 cents.

MRS. B. F. WILCOXON
Fort Des Moines, Iowa.

Pure Food Department.

All Matters Pertaining to Foods will be Discussed in this Department

PURE FOOD MATTERS

A stringent Pure Food Law or Pure Drug Law is welcomed by every truly honest manufacturer. It is his means of protection against unscrupulous manufacturers; manufacturers who are willing to put out adulterated and misbranded products. Already some twenty two states have food laws enforced with different degrees of vigor. There is also the National Law now being put in force in a perfectly honest and fearless manner, as far as lies in the power of Dr. Wiley to make it a protection to the consuming public, and a benefit to the honest manufacturer. The manufacturer of adulterated and misbranded products, however, does not accept the food law with good grace. If there must be a law, it must be as weak as possible; he wants as many loopholes as can be made that he may escape and yet appear to be honest; he wants no standards; he wants no rules or regulations; he wants to be able to go into the Courts with his employed attorneys and shrewd commercial chemists to break down the force of the food laws as far as possible. This class of a manufacturer of foods, drugs, beverages, etc , is doing everything he can to defeat legitimate legislation for the protection of the people, and weaken the force of the present National Food Law as far as possible. He wants to bring conflict between national and state authorities, and, above all, to prevent united action between the several states looking towards a common law.

Below we give one of the circulars, which are being sent broadcast thruout this country by these manufacturers. It is noticeable that they have not the courage to sign their name, or to let the public know who is behind the movement. They are posing to the public as pure food men; they are knifing the law at every turn, where they can keep in the dark. The circular reads as follows:

Dear Sir:

"Do you know that your business is threatened by the many rules and regulations which have been and are being put out by the Department of Agriculture in their assumption of the enforcement of the socalled Federal Food Law, and which are being rapidly adopted and incorporated in the various state food laws of the country. These rules and regulations are being made by theorists who have absolutely no knowledge of the manufacturing, wholesale or retail trade; consequently, your business and ours is being injured by ridiculous, impracticable, uncertain and absurd rulings made by department officials who are placed in office to protect **our** interest, but are doing their best to kill legitimate trade in drugs, canned goods, preserves, confectionery, ice cream, soda water; in fact, practically all kinds of American food products. It is up to you to do **your** share to remedy this. **Sit down now** and write to your Congressmen and Senators, telling them what you think and instructing them to vote in favor of all pure food bills that give the manufacturer, wholesaler and retailer proper consideration and protection. Tell them to support the Pure Food Law as it stands, and to vote for any bill abolishing the rules and regulations that have been issued.

The power and authority of enforcing the Pure Food Law or any pure food law should be delegated to the District Attorney and to the courts, where they properly belong and where all laws are decided. This should not be left to theorists on chemistry, nor to men who do not understand the simple rules of deciding statutes. The only proper authority of decision of any law is the courts. Do not neglect to watch your State Legislatures. Write also to your Assemblymen and to your State Senator, calling to their attention the same facts which you should call to the attention of your Congressmen and United States Senator. Write something like this:

Dear Sir:

We are in favor of the Pure Food Law as passed by Congress and accepted by our State, but as American citizens we protest and object to illegal decisions and regulations which are being issued. The effect on the consumer is such that our business is being ruined. We beg of you to do your utmost to protect legitimate interests and American citizenship that we may keep on to the prosperity with which we have been favored in the past.

We desire you to vote in favor of any bill which will abolish these illegal rules and regulations, and will give to the courts the proper power of deciding any food law.

These men want only the weakest features of the law, and the strongest features they would emasculate. They do not want a definition for jam, for, then, if the law defines what jam is they must make that class of produce. What is jam? Is it the product as made by our mothers, or, is it any kind of a combination of material that the manufacturer can produce at the very cheapest cost and put upon the market and sell in competition with the pure product? One man makes his jam of pure raspberries and sugar; another wants to use the refuse raspberries, which were left from the manufacture of jelly, with glucose as a sweetening agent and acids and gellatine, and he puts this on the market in competition with the first product. Shall they be permitted to do this?

What is sausage? Is it edible meat with the necessary spices and flavor; or, is it, as some have maintained, a product, because, as they say, they have been making this for twenty years and given it to the public; that is, they take 70 lbs. of meat, 5 lbs. of potato flour, and add to this 20 to 25 lbs. of water, and now they have 100 lbs. of sausage, all to be sold at the price of meat. No wonder this manufacturer is afraid of a definition and of a standard for meat; and, then again, what is edible meat.

See "Personal" on page 1.

See "Personal" on page 1.

See "Personal" on page 1.

PURE MINN. AMBER CANE SYRUP

In five-gallon. Wood jacket cans, F. O. B. Waterville. Minn. $3.75 for 5 gallons. Same rate for more. This is 25 cents more than last fall but costs that much more.

Address,
SETH H. KENNEY,
Waterville, Minn.

HONEY Well ripened clover Honey for Sale, guaranteed absolutely pure and of the finest quality. One 30-lb. can 11½c per lb.; 2 or more cans 11c; 12-lb. cans, in full cases of 72 lbs., 11½c per lb. Send for price list. Address
M. V. FACEY, Preston, Fillmore Co., Minn.

"Everhart's
Candies are
PURE."

FARGO MILLING CO.
Fargo, N. D.
Pays the highest market price for wheat.

BLEACHED FLOUR CONDEMNED

The National Consumer's League of America, at a Conference recently held in Cranford, N. J., passed the following resolution:

"RESOLVED, That this Conference endorse the work of Commissioner E.F. Ladd of North Dakota, to have bleached flours labeled so that the Consumer may know when low grades of flour have been bleached to resemble the better grades."

Here one of the most influential organizations among the consumers of the United States has taken a stand in favor of the attitude of Commissioner Ladd, and their influence will go a long way in shaping sentiment, which, at the present time, in New York state is not at all favorable to bleached flours.

It is evident that the representive women of the country are not going to favor white flour at the sacrifice of quality and to permit of fraud which they are becoming aware of at the present time.

PATENT MEDICINE LAW IN GERMANY

Those who think the patent medicine law of North Dakota severe should read the following from the Grocery World and they will see that in this country we are only just begining to see the enactment of laws to protect the public.

The German Government has just taken a step regarding the sale of patent medicines which will probably be eventually followed in the United States and all other civilized countries. It has passed a law surrounding the sale of these fakes with such restrictions that from now on the business will be practically dead. Yet the law contains not a single provision which is not dictated by common sense and common prudence.

A brief summary of the new law follows:

"It enacts that the exteriors of bottles, tins and other vessels containing medical compounds shall bear conspicuously printed upon them (A) the name and address of the firms manufacturing them and (B) the name and address of the retailer who sells them. (This does not apply to wholesalers.)

"It forbids the use of any written or printed statement in praise of the article or compound, any testimonial or recommendation or anything in the nature of an advertisement or an inducement to buy.

Chemists and other retailers are required to know the ingredients of the compounds if they sell them on their own responsibility. Where they do not or cannot know the ingredients of the articles and compounds they are forbidden to sell them except by order of a qualified doctor, dentist or veterinary surgeon (in the latter case the article must be for the use of animals only), and a separate order, duly signed and dated, must be received for each separate supply. The retailers must also see that medicines, which they can only supply to the order of one of those qualified practitioners, bear labels which conspiculously state their condition.

"Lengthy lists of patent medicines governed by these restrictions have

WRITE FOR OUR
Pure Food Grocery Catalog.
FARMERS' SUPPLY HOUSE,
Fargo, - - - North Dakota

WE MAKE CANDIES
Of Merit and Quality.
CONGRESS CANDY CO.,
GRAND FORKS, N. D.

OUR FLOURS
ARE
Absolutely Pure and Wholesome
Ask Your Dealer For Either
"DIAMOND,"
"OCCIDENT"
or "BELLE,"
Mills at Valley City, Jamestown, Grand Forks, Minot. Daily Capacity, 3500 Barrels.
Russell-Miller Milling Company.

YERXA
FARGO, N. D.
"The Cash Grocer"
We buy in large quantities, for cash only, for our various stores and can save you money.
Big Store Big Stock Big Sales Small Profits Cash

MEAD'S CEREAL BLEND
LOOKS LIKE COFFEE
TASTES LIKE COFFEE
SMELLS LIKE COFFEE
BUT IS NOT COFFEE.
Is a Scientific blend of the Choicest Rye Wheat and Barley Grown, no hulls, chicory or dope in it. Aids digestion and cures dyspepsia. Costs ⅔ less than Mocha & Java—is 20 times better. A pound package post paid on receipt of 25 cents. Write for our three special offers. Ask your grocer for it first.
MINNEAPOLIS CEREAL CO.,
Coffee Dept. Minneapolis, Minn.
Agents wanted everywhere. U. S. SERIAL 712

The Name
"Nokomis"
On the label of any food product is an absolute
Pure Food Guarantee
And it is also a guarantee that the product bearing the label has reached the highest degree of excellence in flavor and wholesomeness that it has been possible so far for any food product to reach.
If your dealer does not handle Nokomis Canned Goods and Nokomis Coffee, send us his name and address and we will undertake to see that you are supplied.
STONE-ORDEAN-WELLS COMPANY,
Duluth, Minn.

Pure Food Advertisers

The products advertised below are in compliance with the pure food law of North Dakota and of the highest grade.
ASK YOUR GROCER FOR THEM.

"BUY" "EAT"

HOME BRAND

Pure Food Products

"ECONOMY" "SATISFACTION"

Griggs, Cooper & Co.

MANUFACTURING
WHOLESALE
GROCERS,

ST. PAUL, MINN.

Main Offices:
CORNER THIRD AND BROADWAY

MARQUETTE BRAND

Honest Value At Honest Price

MARQUETTE CANNED GOODS,
MAPLE SYRUP,
SPICES AND EXTRACTS,
COFFEE.

PARK, GRANT & MORRIS, Fargo, N. D.
PARK, GRANT & MORRIS GROCERY CO., Grand Forks, N. D.
WHOLESALE DISTRIBUTORS.

RETAILERS PROTECTED

The National Food Law did not take effect until January 1st, 1907; and all goods on hand or receive by you prior to that time, are not affected in any manner by the National Food Law, and will not be, unless shipped from one state into another after the law goes into effect January 1st, 1907.

For your protection, it is necessary that you handle only pure goods, properly labeled within the meaning of this law and we, therefore, call your attention to the fact that food products sold to you by us are not adulterated or misbranded and are all guaranteed to conform to the requirements of all food laws, both State and National. This guarantee protects you from prosecutions under the National Food Law on any food products purchased from us hereafter.

REID, MURDOCH & Co., Chicago.

Libby's Food Products

Canned Meats Pickles Olives
Preserves etc.
Libby, McNeill & Libby.

GRAND PRIZE
(The highest honor)
Awarded to
DR. PRICE'S DELICIOUS Flavoring Extracts
At the
ST. LOUIS EXPOSITION.
For sale by all representative grocers.

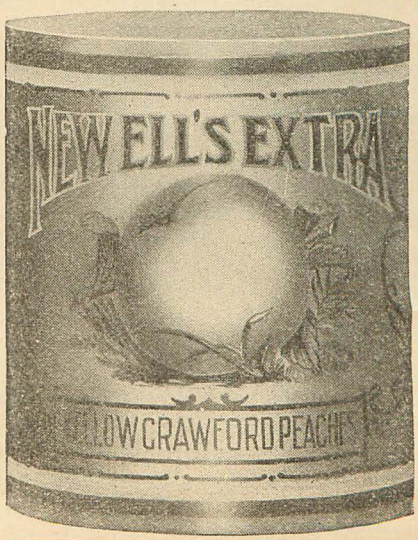
NEWELL'S EXTRA LINE

Represents the highest quality of food products that can possibly be obtained. Purity and quantity always stand foremost.

Geo. R. Newell & Co.,

WHOLESALE GROCERS,

MINNEAPOLIS, - - - MINN.



been officially circulated and it is enacted that public advertisements of the articles mentioned is strictly prohibited, the term advertisements to include anything and everything whatsoever in the nature of an advertisement, directly or indirectly, such as an announcement offering to supply on request printed matter, the object of which is to further sales."

No legislation was ever more sorely needed than this. These birds of prey, selling their alcoholic or narcotic compounds thru the most flagrant falsehoods and misrepresentations, ought to be made to suffer the torments of all the complaints they have falsely promised in their advertising to alleviate.

The whole patent medicine idea is illogical, since the successful ad-ministration of any remedy depends wholly on accurate diagnosis. This cannot be accomplished by the patient himself. The most stupendous outrages are committed under the cloak of the patent medicine business! One of the most widely advertised catarrh remedies proved on recent analysis to be composed of 26 per cent of alcohol, 74 per cent of water, and less than one-half of 1 per cent of remedial agents! The stuff is simply a tipple and while it will stimulate because of its alcohol, can never cure anything.

There are probably a hundred other patent medicines on the market, just as widely sold, which embody frauds every bit as glaring. The time has come to scotch the thing!

Anybody can produce "pure foods." Only experts can produce the top notch quality of

ARMOUR'S TRADE *Veribest* MARK MEATS.

Packed in Air-Tight Tins.

"U. S. Inspected" purity plus ARMOUR quality.

Home Affairs

Katherine C. Neilson, Editor

FRUIT CAKE WITHOUT EGGS

One cup of shortening (butter and lard) one and one-half cups of sugar, one-half cup molasses, two cups of raisins or both currants and raisins, one-half cup chopped orange or lemon peel, only the thin yellow outside, spices. Two cups of sour milk and two teaspoons of soda, about four and one-half or 5 cups of flour, salt always brings out the flavor of everything. Add it even to cocoa. Grease the pan well and dust it with flour, which is better than using greased paper. Bake this rather slow.

Frosting, boiled. One cup granulated sugar, one-quarter of a cup of milk. Stir sugar into milk in a dish and set the dish into a pan of hot water. Do not stir for a few minutes. When it is creamy and drops from the point of the spoon and forms a hair, remove it. Add flavoring and chopped figs, nuts or raisins; put onto the cake while it is running slowly.

This will keep longer than egg frosting and if cooked properly will not crumble. Salt and raisins are the cheapest to use and less work, but all raisins should be scalded before using.

"Christ-mass" has come, to be again comemmorated and remind us that by a child we were led to "Peace on Earth and good will to men." and each twelfth month at the close of the old year and at the door of the new year we are to renew the advent of this peace and good will.

This festival it would seem should be in memory of children, simple and pure and not be abused by adults in the promiscuous gift-craze all over Christendom. Imitation, sincerity and sympathy and trading of commodities called Christmas presents has become somewhat of a board of exchange without a true, sincere and helpful sentiment. Not all are of this character, but too much has given an unpleasant aspect to his season.

A country Xmas is truly a cheerful event among children, who accept happily what they receive. It makes us all happy to give them good cheer. City children see and long for so much they cannot have while some are burdened with more than they can enjoy.

The best gift a child's heart can hold, is the goodwill it is taught towards others, sympathy for those who have nothing, an unselfish acceptance and giving up something with a free and open heartedness for others to enjoy. These kindly acts grow with them, and are never forgotten and will teach the precept from generation to generation. Send them across the prairie with a basket to a poor little baby or to an invalid forgotten. The birth of this sacred thought is an advent in their hearts cherished for life.

CHRISTMAS PUDDING

One quart of milk, sweet or sour; as much pulverized bread as it will take up, after it has soaked for an hour; then add the following: one-half lb. suet chopped fine; 2 lbs. of fruit (currants and raisins both if you have them); 2 eggs; 1 cup of molasses; 1 tablespoon of soda.

Steam 4 hours in a deep pail in the oven in a pan of water and cover. If the bread does not make this stiff enough the bread does not make this stiff enough, add flour. It should be as stiff as fruit cake.

It will keep a long time and can be re-steamed any time.

Pudding Sauce for the same:

Three eggs well beaten, one-half cup of butter, 2 cups of sugar, well beaten together. Add nutmeg, vanilla and boiling water. Do not let it cook, only keep hot. This is as good as the English Xmas pudding but not as extravagant.

OILS, PAINTS, AND PAINT PIGMENTS.

NORTH DAKOTA LAW UPHELD

One of the most important victories won for the state has been the sustaining of the constitutionality of the North Dakota Paint Law. A decision has just been handed down by the Supreme Court of the U. S. that the Paint Law of the state is not discrimatory; that it is not in violation of the Constitution; that it is reasonable and a just exercise of the police power of the state.

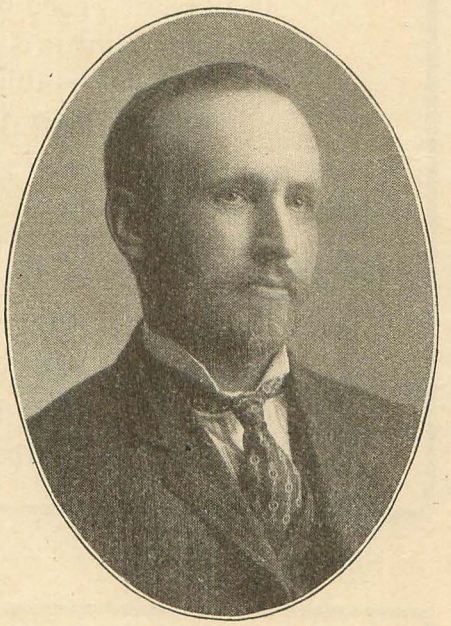
We publish the following from the Fargo Forum with regard to the recent decision:

When asked with regard to the decision of the Supreme Court upholding the constitutionality of the North Dakota Paint Law, Prof. Ladd stated that he had been confident of the final outcome being favorable to the State. The decision is a most important one at this time, for it establishes clearly and unmistabakly the right of the State Legislature to enact laws for the protection of the people, and to establish standards, where such standards are not vicious or discrimatory. The decision is important not only in connection with paint matters, but applies with full force to many features of our various state food and drug laws. In enacting the law in North Dakota the Legislature only attempted to express the opinion of the paint authorities and even of the paint manufacturers themselves by establishing or rather recognizing such a standard as has been generally recognized among the paint men, viz., that when a paint is produced from pure white lead, pure zinc oxide, pure linseed oil, pure turpentine, true Japan driers and pure colors, no labeling need be required. But, where there is substitution of other products, the public have a right to know what products have been introduced. As to the value of some of these substitute paint constituents, there can be no question, especially when they are to be used in the production of paint for specific purposes. But, in such cases, there are usually experts who are able to prescribe such specifications as are needed for the particular paint.

Prof. Ladd further stated that he was glad to say that, probably anticipating the decision, all of the paint manufacturers, who are doing any considerable business in North Dakota, have taken steps to comply with the requirements of our Paint Law. It is doubtful if there are any considerable amount of paints to be found within the state, which do not comply with the requirements of our law. Without attempting prosecutions, the Department has been so confident of success that it has not hesitated to insist on a general compliance with the requirements.

Now, that the constitutionality of the Law has been maintained, there are several features that may be well strengthened for the benefit of the people of the state. Varnishes, linseed oil, colors, etc., should be brought under the Law, for among these products are to be found many forms of adulteration, and this is especially true of some of the linseed oil, altho this class of adulterated product has been pretty generally driven from the state.

The policy which has been pursued by the Deprtment in the past will be continued, and we do not anticipate that there will be any attempt on the part of the manufacturers to violate the features of the Law, or that there will be any necessity for prosecutions, unless it be in exceptional cases.



Pure Food Commissioner Ladd

There has been, and is now, a very general difference of opinion as to whether all paints should be required to be labeled, or only those which differ from the North Dakota standard. The more fully I investigate the subject, the more fully I am convinced that the North Dakota idea is the correct one, wherever public sentiment is such that a bill of this nature can be enacted into a law. If further investigations and experiments, such as are being conducted at the Agricultural College, should demonstrate that other pigments are of equal value with that of white lead and zinc, the law can then be modified so as to permit of their use. "I have constantly maintained," said Prof. Ladd, "that new and untried pigments are not entitled to the same rights and consideration as are those pigments which have been in use for longer periods of time. A new man must first demonstrate his worth before the public are ready to accept him as a leader. In the same way the public have a right to demand that any new pigment, to be used in paint, should have been thoroly tested out before the public are asked to fully endorse it."

AGITATION STRONG

The legislative comimttee of the Paint Manufacturers Association is pressing the agitation among paint men against the North Dakota paint law. At the coming session of congress an effort will be made to have a national paint law passed which will also be used to shape legislation on paints in the various state legislatures.

The suit brought by paint manufactuters to test the constitutionality of the North Dakota paint law was expected to have been heard and decided before this time. It is now in the supreme court of the United States.

The hardware retailers thruout the country have become much interested in the outcome of this controversy. Some of the leading paint manufacturers have recently appeared before conventions of retail hardware men to present their side of the case. Among these is E. W. Heath, of Cleveland, whose address before the Michigan retail hardware dealers' convention is being given wide circulation. In his address Mr. Heath takes a vigorous wallop at the North Dakota law, but gives Commissioner Ladd credit for fairness in administering it.

Everything points to a right lively time in paint legislation during the coming winter.—The Hardware Trade.

PAINT LEGISLATION

By Charles E. Field, Before the Retail Hardware Dealers' Association of Michigan

(Continued from December Issue.)

The object of paint is twofold: first, to protect and preserve the building or surface, and secondly, to beautify or make pleasant to the eye by any color scheme desired. You will agree with me that that paint which combines these two qualities in the highest degree is the best. In the attainment of the first object, the best that you can buy, is the cheapest you can use; likewise in the attainment of the second, the cheapest you can buy is the worst you can use. The expense in painting is principally in the labor. It costs no more to put on the very best than it does the very cheapest.

But what is the very best paint will

bring forth a multitude of claims from a multitude of manufacturers, that are, to say the least, confusing, and it is not my thought to discuss that point at this time, altho I may say in passing, that I have very strong convictions of what does constitute the best paint on top of earth, but I am willing to leave the consideration of that question to the consuming public, who are your customers, but who are vitally interested in its solution.

White Lead has been used as a paint for centuries, in fact, its use can be traced to the early Christian era, but I know of no article known to commerce that has been so traduced, so maligned, or so much adulterated as white lead. A chemical analysis of all of the so-called white leads upon the market would astound you. Many of them contain very little if any lead. I have in my pocket the analyses of at least 75 brands that have been sold in the post. Every brand or label states or implies that the contents of the package is either Pure White Lead or White Lead and Zinc. The word Barytes does not appear on a single package, but the analyses show that almost everyone contains from 40 to 90% of Barytes.

White Lead has seen myriads of similar substitutes masquerading under its own name come and go, but in spite of all is today the standard up to which all other paints are measured. "Equal to White Lead," "Just as good as White Lead," "Better than White Lead," are expressions familiar to you all, but I do not believe there is a man within the sound of my voice, that has any admiration for that inconsistency that will claim a mixture of Lead, Zinc or Barytes, or any other combination to be superior to White Lead, and then to put it into kegs and place it on the market branded as White Lead.

White Lead did not obtain, and has not maintained thru all the centuries this position as the standard paint by any mere chance or accident, but occupies its prestige in the commercial world today simply and solely upon its merits. If it did not have that merit, it would have been killed long years ago, but in spite of myriads of substitutes with which the market is flooded, in spite of those unscrupulous manufacturers and dealers who are willing to sacrifice principle for profit, it occupies

How to Save Paint Bills

Be careful not to use imitation paints, or substitutes for pure White Lead, containing clay, chalk, etc. They will surely crack, scale and fade, and cost more to **burn off** than they did to put on.

CARTER

Strictly Pure

White Lead

is most economical because **every atom is paint.** Spreads best, covers most and wears longest. Gives any color or tint. Sold by reliable dealers everywhere.

Send for our booklet, "*Pure Paint.*" Gives valuable information on the use of paint, and saves you money by showing how to avoid worthless paint mixtures. Sent **FREE** with six beautiful color schemes.

Address Dept. W
CARTER WHITE LEAD CO., Chicago, Ill.
Factories: Chicago—Omaha.

BRADLEY & VROOMAN PAINT

Is **all** paint—**good** paint.
The **best** paint it is possible to make.
Every gallon is full measure—full value.

EVERY CAN GUARANTEED!

If you paint your house, barn, or anything else, with Bradley & Vrooman Paint, you will get better results in both wear and appearance than you will if you use any other.

Bradley & Vrooman Co.,
Paint Makers
2629-35 Dearborn St.,—Chicago.

THE ONLY BARN PAINT

bearing a formula label showing its composition and conforming in every detail to the laws of North Dakota.

PITKIN'S TRIPPLE CROWN BARN PAINT IS GUARANTEED TO WEAR 5 YEARS

The greatest part of the cost of painting is the labor necessary for applying. Therefore it is certainly economy to buy the paint which will wear the longest and at the same time give satisfaction.

Pitkin's is that paint. Pitkin has been making paint for 40 years and has a reputation for integrity and reliability that is in itself a guarantee of the goods.

Be sure to buy the right paint; not the cheapest paint.
Send for a free sample.

Geo. W. Pitkin Co.,
Paint and Color Makers,
Benton Harbor, Mich.

The *Life* of Paint is the Thing

How long was the life of the last paint you used? Was it as long as it should have been? Did it put off for you the necessity of repainting too soon? If you can't answer these questions satisfactorily you haven't used

SHERWIN-WILLIAMS PAINT, PREPARED, (S. W. P.)

It is the paint that resists the wear of sun and rain. Properly applied, it will withstand the most rigorous climate—the hardest conditions on paint—longer than any other prepared paint, or lead and oil. Its long life comes from the high quality of the materials used in it, and the care and attention given to every detail of manufacture. S. W. P. will unquestionably protect your house and keep up its appearance for the longest possible time. It is the most satisfactory and economical paint to use. Sold by best dealers everywhere.

THE SHERWIN-WILLIAMS CO.

LARGEST PAINT AND VARNISH MAKERS IN THE WORLD

FACTORIES: CLEVELAND, CHICAGO, NEWARK, MONTREAL, LONDON, ENG.
SALES OFFICES AND WAREHOUSES IN PRINCIPAL CITIES

268

an enviable position today in the minds of architects, consumers and master painters, which no amount of sophistry or controversy has been able to displace.

Is it any wonder then, that the matter has been taken up, not by manufacturers of white lead themselves, but by those in authority, for the protection of the public, against the misleading and misbranding that has prevailed so long, that in these days of higher prices and higher cost of living, the consumer may know that he is getting what he pays for, and value received for his hard earned money?

This brings us to the question of legislation.

There are those who think we have too much legislation, that if the laws we now have were vigorously and honestly enforced, we would get along pretty well. I agree with that sentiment in part, but it is well to consider that conditions are constantly changing. The spirit of commercialism which is rampant in this country today is in the very nature of things enforcing a readjstment of man's relation to his fellow man, a subject that is older than the Mosaic law.

The laws for the protection of our fish and game, taken up by one state after another, until now I believe every state in the Union has laws of that kind, have proved to be wise legislation.

What Will It Do?

This is the question for you to ask when buying paint.

There are too many paints on the market that have no merits except that they sell at a low price or are made of S. P. Lead or Lead and Zinc.

What you want in paint is

1st.—DURABILITY
2nd.—COVERING CAPACITY
3rd.—APPEARANCE
4th.—COST PER YEAR TO PROPERLY PROTECT THE SURFACE

The Heath & Milligan Paints

possess the above qualities and insure BEST RESULTS

ASK OUR AGENT OR WRITE TO

Heath & Milligan Mfg Co

Paint and Color Makers

ESTABLISHED 1851. THE H&M PAINTS TRADE MARK ADOPTED 1905.

Chicago U. S. A.

LIBRARY
UNIVERSITY OF NORTH DAKOTA
ELLENDALE BRANCH
ELLENDALE, NORTH DAKOTA

The history of the socalled Pure Food Laws is an interesting development of the demand of the people for protection against the misbranding and adulterating of the food we eat.

The question of paint legislation is of such recent origin that you are familiar with its history. It was not instigated by the manufacturers, but was born from a demand by the people for protection against the unscrupulous practice that has prevailed in the past. It was at first opposed, but that opposition has since turned in its favor, and is now endeavoring to direct it along equitable and uniform lines, so that manufacturers, dealers and consumers are looking forward to a time when there may be a national law governing the whole subjec national law governing the whole subject.

To Prof. Ladd of North Dakota Agricultural College is largely due the credit for what legislation has been accomplished. He took up the matter in behalf of the people of his State, misunderstood and accused of sinister motives, but toiling on until that criticism has turned to admiration for his uncomprising attitude in the face of vigorous opposition. Would that we had more Prof. Ladds in other states.

Now, those who are interested specially in legislation are the manufacturers, dealers, consumers and master painters with the emphasis upon the consumer and master painter, which embodies practically the entire community, so that by no stretch of the imagination or the juggling of the English language can it be termed "Paternal" or "Class" legislation.

To show that it is receiving most serious attention, a committee duly appointed from the Master Painters' & Decorators' Association of the United States and Canada, the Paint Grinders' Association, and the National Paint, Oil & Varnish Association met together in Philadelphia on May 9th last to consider the subject of paint legislation, and decide on a uniform bill, which they will recommend to their respective associations. This form is practically the same bill that has recently become a law in Minnesota by the action of the Legislature of that State, and I would strongly recommend it for your consideration. It is simple, concise, to the point, and eminently fair, and I have yet to hear any opposition to such a bill.

So I plead, not for that legislation which shall set White Lead, Zinc, Barytes, or any other pigment or ready-mixed paints upon any pedestal, but for that legislation which shall protect the consumer against the misbranding and misstatement with reference to any of these pigments. Did you ever hear, for instance, of Pure White Lead alone being branded Zinc or Barytes? You have heard of Zinc and Barytes being branded White Lead. Is it fair, is it right, that a man in the country wishing to paint his house with White Lead should purchase a package that is branded White Lead, supposing that he got what he wanted and paid for, but that really contained very little if any White Lead in it? Is it not to your interest as dealers to protect your customers as far as possible against such a practice? I think it is, and I hope by your action at this convention, you will recommend in no uncertain language and more than that, you will go away determined to work for such legislation that shall in the interests of justice of honesty, of fair play, and of your own personal interests in the long run, protect the people of your great State.

I thank you for your attention.

MASURY'S HOUSE PAINTS ARE LIQUID PURE

THIS LABEL ON EVERY CAN

MASURY'S LIQUID COLORS
PRODUCED WITH CARBONATE OF LEAD OXIDE OF ZINC PURE TINTING COLORS LINSEED OIL TURPENTINE DRYER AND GUARANTEED TO CONTAIN NOTHING ELSE
John W. Masury & Son

100 PER CENT DURABILITY.
With a record of sixty-five years is the guarantee that
MASURY'S PURE LIQUID HOUSE PAINTS
Offer for Durability and Economy.
THE STANDARD OF EXCELLENCE FOR SIXTY-FIVE YEARS
JOHN W. MASURY & SON, Manufacturers. Paints, Colors and Varnishes.
NEW YORK - ST. LOUIS - CHICAGO - MINNEAPOLIS
NORTHWESTERN BRANCH, 320-322 Second Ave. No., Minneapolis

Things Worth Knowing
about
The Best Paint

ALL **good** paint is mixed in **pure linseed oil.** Linseed oil is the **life** of any paint. The paint that is mixed in the best linseed oil is the **best** paint; the **brightest;** the most **lasting;** the **cheapest.** We make our own linseed oil—from Northwestern flax—press it in **our own mills** and mix it **ourselves. That's why we know** that **Minnesota Linseed Oil Paint** is better than other paint.

In this pure Linseed Oil we grind guaranteed pure White Lead, pure Oxide of Zinc, pure Colors, with the proper Driers. ═══ You can't buy better paint in the world than this. If **we** could make it any better we'd do it. We have been making this paint for thirty-six years and it's better **now** than it ever was. ═══ It looks better and lasts longer than any paint you ever used. We put it up in full **U. S. Government** measure cans.

"A SPECIAL PAINT FOR EVERY PAINTABLE SURFACE"
INSIDE OR OUTSIDE

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THE HORSE SHOE BRAND

To produce the highest quality in paint, there must be but one incentive; the will to do it. If the question of profit or individual preference is allowed to influence or prejudice its composition, success in reaching perfection is balked.

Science can recognize nothing but truth. Intention may be honest and desire laudable but if either swerve from the fixed principle of law and fact the discovery of truth must wait for the unbiased mind to reveal it.

The **HORSE SHOE PAINT** is made of materials recognized and accepted by all authorities practical and scientific as the best known for paint making. There is nothing in it about which there is any question or dispute. It's a pure zinc, lead and linseed oil paint, with the necessary pure drier and tinting color. All standard, nothing experimental.

When all authorities are as fully agreed as they are on zinc, lead and linseed oil, that some other material is necessary to improve it, we will add that to its composition. Until then the **HORSE SHOE BRAND** will remain as it is, a composition of the standard paint materials, free from everything doubtful or experimental. That is a course equally safe for all parties

Mound City Paint & Color Co.

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